DL838 (Hons) Creative Music Production

Professional Project - Year 4

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What are the best practices, from initial idea to final master, to best achieve placement on Spotify editorial playlists?

April 28th 2023

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Abstract

This project aimed to develop a set of guidelines that, if followed, would have helped songs achieve placement on Spotify playlists. Research was done into areas such as the nature of Spotify's playlisting process, how Spotify views the music it presents, songs which have been selected for playlists and how small artists can promote their music to optimise their chances of being selected for playlists. A playlist was chosen to analyse and its songs were examined in various aspects such as songwriting, production and mixing. A song was then written and produced with these guidelines in mind, published to Spotify and applied for selection for Spotify playlists. The song was not successful in being selected for the playlist. In the process of this project, valuable information was gained through analysis and experimentation. This information could aid small artists seeking to further understand the nature of these playlists, and the best ways to create songs that will be placed on them.

Introduction

Spotify[1] is the most popular streaming service in the world. Spotify's platform and the way it presents music to their audience has changed the landscape of the music industry. The primary way most listeners on Spotify consume music is through playlists. There are two types of playlists: algorithmic and editorial. Algorithmic playlists[2] suggest new music to listeners using their own listening habits. **Editorial playlists**[3] are a way many lesser known artists are achieving success on Spotify, and will be the subject of this project. Many Irish acts such as KhakiKid and Lucy McWilliams have gained considerable success in a short time as a result of achieving placements on editorial playlists[4]. The difficulty many artists are facing is the nebulous nature of the selection process for editorial playlists. The application for placement on editorial playlists is, for the most part, self-directed and the information on Spotify's artist resource website, 'Spotify for Artists'[5], can be perceived as intentionally vague. The general consensus of artists applying for playlisting on Spotify is that the absence of useful information on their resources is intentional. This leaves smaller artists concerned that their music is being discounted by an algorithm and denied the chance to gain exposure with no regard to its artistic merit.

This project sought to answer the question: 'What are the best practices, from initial idea to final master, to best achieve placement on Spotify editorial playlists?' The aim of this project was to create a set of guidelines for small artists wanting to achieve placements on Spotify editorial playlists. The end product of the project would be a song tailored to be enticing to playlist curators throughout the songwriting and production process. This document will describe the development of the project beginning with the methodology, which will be influenced by resources researched and evaluated in the literature review. The project will then be analysed and discussed.

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[1] spotify.com

[2] Playlists that are generated by Spotify by analysing a user's listening history and curating similar songs automatically.

[3] Playlists that are curated by editors who are employed by Spotify

[4] https://open.spotify.com/artist/6ERytyft8dcTGIVtiuNpxp?si=qGhKmCBuSKS8aIUTJqcBeQ and https://open.spotify.com/artist/41AscmNq0sWTYo4gRCp21k?si=_d9NIWpySn-U2KsjNsvXVQ

[5] artists.spotify.com

Literature Review

Before meaningfully engaging in the practical side of the project with its research resources in mind, these resources must first be analysed and critiqued. This was done in order to discern whether they were credible enough to use as part of the project. The resources chosen discuss topics such as: the nature of Spotify editorial playlists, songwriting and production techniques used in songs on Spotify editorial playlists, the music production process in the modern music landscape, and the promotion of music on social media.

Prior the production of the final song, a target playlist[6] is required to help establish the parameters of the project's goal. The Spotify editorial playlist ‘A Breath of Fresh Éire’ (published 2022) is a weekly playlist curated by Spotify editors. This playlist showcases new Irish music across all genres. It features songs from Irish artists such as Sorcha Richardson, Jafaris and KhakiKid. This playlist provides insight into how Spotify categorises music not only by genre, but also by location and culture, specifically in reference to the local Irish music culture. This has influenced the project in both the production and application processes. This project takes into account the cultural relevance of where and how it was conceived, as well as how to best tag and categorise the song in the application for editorial playlists. Songs on this particular playlist could be analysed in their musical aspects as well as more technical detail including production and mixing.

Once the playlist had been chosen, the project researched songs and artists that have achieved placements on this playlist. The album ‘Smiling Like an Idiot’ (published 2022) by Sorcha Richardson is a valuable case study in how to achieve Spotify playlisting on multiple songs from the same release. Several different songs on Richardson’s latest album have achieved placements for editorial playlists. These include ‘Spotlight Television’ on the playlist ‘pumpkin spice’ and ‘Archie’ on ‘lyric therapy'. Normally, Spotify only allows one song per artist to be applied for playlisting at once. Richardson’s album provides insight into how to incorporate an artist's personal aesthetic into a song while also making it viable for placement on Spotify editorial playlists. This insight would influence the songwriting and production process of this project. This album would not only act was creative inspiration, but also interpreted as the work of an artist supported by a label. This support would be taken into account when analysing songs from this album.

[6] The editorial playlist chosen to aim to achieve a placement on.

The next logical step after researching the way in which songs are placed into playlists was to research how frequently playlisted songs are written and developed. In the video ‘What Makes Phoebe Bridgers 1 in a million?’ (published 2022), Jack Conte and Ryan Lerman interview producer Tony Berg and session guitarist Harrison Whitford to discuss the process of working with Phoebe Bridgers on her album ‘Punisher’. Songs from this album are frequently placed on popular editorial playlists on Spotify, such as ‘Essential Indie’ and ‘my life is a movie’. Jack Conte and Ryan Lerman are music producers and artists who are involved in acts such as Scary Pockets and Pomplamoose. Berg goes into detail about the process of developing the songs with Bridgers from initial ideas to the final product. Berg gives information on how songs developed in arrangement and sequence through the process of producing the album. This information on the songwriting and development process will be utilised during the production process of the project to guide the work closer in aesthetic to songs that frequently achieve places on Spotify playlists.

Once the writing and development of songs had been researched, it benefited the project to turn its attention onto the way in which the production, sound design and arrangement processes transpire for frequently playlisted songs. In the video ‘Bleachers - Making Of Don't Take The Money’ (2017), Jack Antonoff discusses the process of writing, recording and mixing the song ‘Don’t Take the Money’ by Bleachers. Antonoff is a prolific artist and music producer who frequently achieves placements on top alternative and pop Spotify playlists with his production. In this piece, Antonoff provides valuable insight into the practical techniques employed from initial concept to end result of a song that is still frequently playlisted on the likes of ‘Energy Booster: Indie’ and ‘It’s ALT Good!’ on Spotify. Antonoff discusses specific details of the arrangement and sound design of the song. This resource was valuable to the project due to the insight it provides on the state of how current music is made and the practical techniques detailed for songwriting and production for music for editorial playlists. This knowledge would be utilised in the creation process of the project, when dealing with the arrangement and sound design of the piece.

With enough research done on the production process, it made sense for the project to focus on the mechanics of achieving placements on Spotify playlists. The website ‘Made to Be Found’ (published 2022) was created by Sam Duboff. It aims to inform artists about the best way to utilise the Spotify playlist application process and promote their music to give the best chance of achieving placements in editorial playlists on Spotify. Sam Duboff is head of creator brand & product marketing at Spotify. The website offers insight of how songs selected for editorial playlists

can be chosen for larger editorial and algorithmic playlists. This process is shown through three case studies of songs from then little known artists S1mba, CHAI and Firebox DML which became very successful due to their placements on Spotify playlists. According to the website, if a song placed on a small editorial playlist receives a lot of streams on that playlist, the song is tagged and then considered for playlists with larger followings. This illustrates the point that once a song has achieved a placement on a playlist, the artist should drive as many streams to their song on that playlist as possible to increase the chance of being placed on a bigger playlist. This also means that if a song is not placed on a playlist on the day of release, the artist should still drive as many streams to the song as possible, as the Spotify algorithm will monitor this and possibly reconsider the song for playlisting. This website provides valuable insight on how Spotify considers and monitors songs after their release. This would guide the project after the song's release when promoting the song for playlisting.

After learning of the basic process of how playlists work, the project can begin to research how Spotify uses playlists to impact the music industry as a whole. In the journal article 'The editorial playlist as container technology: on Spotify and the logistical role of digital music packages.'(published in 2020), Maria Eriksson discusses the economic significance of the playlist as a new way of packaging and delivering music to consumers. Eriksson is a postdoctoral fellow at Humlab, a research infrastructure at the Faculty of Arts at Umeå University. The article concludes through interviews with key figures in Spotify's playlist team, such as curators of editorial playlists, that playlists can be a valued tool in controlling how music is presented to listeners. Eriksson also discerns that due to the nature of the product that playlists deliver to consumers, it is difficult to extract meaningful data from playlist insights, as sample sizes and the playlist contents are constantly changing. In the article, Eriksson has interviewed several Spotify playlist curators and discovered knowledge on how these curators choose songs for editorial playlists. Eriksson specifically outlines the detail in which they monitor a song's impressions both before and during its time on an editorial playlist. When a curator is examining a songs playlist application, the applicant's tags will be compared with the tags of heavily streamed songs on playlists. The insight this article provides would guide the project in the creation and application processes. During the creation process, the product made would be influenced by songs which receive large amounts of streams on the target playlist. In the application process, the song would be tagged with similar tags to songs which receive large amounts of streams on the target playlist.

Expanding on Eriksson's article, the project can now begin research on how Spotify views the music uploaded to its platform in general. In the article 'What does music mean to Spotify? An Essay on musical significance in the era of digital creation.' (published 2019), author Asher Tobin Chodos details the larger idea of Spotify's perspective on the music they provide to their listeners, and how that perspective may be changing they way music is made and consumed. Chodos is a musicologist and a fellow of the Dave Brubeck institute. Chodos received his doctorate in music from UC San Diego. He compares the music made before and after the advent of Spotify as the most popular way to consume music, then analyses the artistic impact of both eras of music. The article arrives at the conclusion that Spotify views music more as a product for their consumers, rather than a piece of art to be appreciated. This has caused a shift in how music is created today, with an increasing number of artists making creative decisions with the aim to achieve success on Spotify. This is valuable to the project because the more known about how Spotify deals with and views the music it distributes to its listeners, the better the project can be tailored in the application and promotion process to achieve success on the platform. This resource is an influence on the project through the knowledge it provides on how Spotify processes the music it distributes.

With all this knowledge of how Spotify operates and interacts with artists, playlists and listeners, it is helpful to have some understanding on the promotional aspect of the music industry as it relates to playlist curation. In the video 'How To Break An Artist From Scratch' (published 2022), Alex Jobling and Maddy Raven discuss their advice for independent artists using social media to promote their music. Jobling and Raven are music marketing agents and the owners of the YouTube channel, Burstimo. Burstimo is a music marketing agency and an industry resource for independent musicians looking to build their presence online and gain an audience. Burstimo have worked with major labels such as Universal Music Group and Warner Music to promote artists signed to their rosters. This video gives useful advice on the steps an artist can take to build a social media following in order to promote their music. The video details the ways in which an artist can approach their promotional strategy for social media platforms like Instagram, TikTok and YouTube. The knowledge gained from this video would guide the project during the promotional process. The video would influence how a promotional campaign would be executed from deciding what to post and the schedule of when to post on social media platforms.

Now that the research resources have been critiqued and analysed, the process of the project can be discussed in the methodology section.

Methodology

The aim of the current project was to choose a specific editorial playlist on Spotify and analyse the one hundred songs that performed the best on that playlist in terms of streams. A select number of songs would be also chosen from this larger group to analyse in more detail. This analysis would then be interpreted and developed into a set of songwriting and production guidelines. A song would then be written, produced and published to Spotify with the aim of achieving a placement on this playlist. This song's performance on Spotify would then be compared to a song which was not made using these guidelines, which would act as a scientific control[7].

This project can be broken into six stages:

- Researching the application process for selection for editorial playlists.
- Choosing an editorial playlist, finding it's top one hundred performing songs and choosing a select number of songs for further analysis.
- Analysing the songs.
- Developing songwriting and production guidelines.
- Writing and production of the song.
- Publishing and promoting the song and applying to editorial playlists.

Researching the application process for selection for editorial playlists.

Once a song is delivered to Spotify and scheduled for release, Spotify allows the artist to apply the song for consideration for editorial playlists. With help from the project's mentor Peter Meighan, it was decided that research should be done into the playlist application experience with Spotify. This research was conducted by publishing the control song to Spotify and applying for playlisting. The control song chosen was 'Endlessly' by Human Virtues[8]. Once the song was published the project could then move on to choosing an editorial playlist to aim to achieve placement on.

[7] A subject or a group in an experiment where the factor being tested is not applied, hence, serves as a standard for comparison against another group where the factor is applied.

[8] Human Virtues. "Endlessly". *Endlessly*, Human Virtues, 2022. Single.

Choosing an editorial playlist, finding it's top one hundred performing songs and choosing a select number of songs for further analysis.

Before any analysis could be done and before production decisions could be made, an editorial playlist had to be chosen. It was decided that this target playlist should not be one of Spotify's most popular editorial playlists, due to the way Spotify selects songs for playlists. According to Spotify, songs from smaller artists are placed on smaller editorial playlists. If a song performs well on this smaller playlist, it would then be placed on a larger editorial playlist. This process can continue exponentially until the song reaches Spotify's most popular editorial playlists[9]. It was decided that the chosen playlist should represent a category of music that the song would naturally fall into. This category did not have to be restricted to a genre or style of music, as there are many Spotify editorial playlists centred around nationality, culture and instrumentation. Taking these decisions into account, it was decided that the playlist 'A Breath of Fresh Éire' would be chosen as the target playlist. This was due to it's small to medium sized following of over sixty thousand likes as of April 19th 2023, and the fact that the playlist highlights songs made specifically by Irish artists. The song will be made in Ireland, and therefore relevant to the playlist.

Once the target playlist had been chosen, the one hundred best performing songs on the playlist had to be determined. Editorial playlists are refreshed periodically as new music is released. This means that the current version of the playlist is not representative of it's best performing songs, as some may have been removed after a period of time in place of newer music. In November of 2022, as part of their yearly 'Spotify Wrapped'[10] event, Spotify released the playlist 'Best of Fresh Éire', which compiled the top one hundred best performing songs on 'A Breath of Fresh Éire' that year. It was decided that a dataset[11] would be created by analysing the songs on the 'Best of Fresh Éire' playlist.

The next decision to be made once the top one hundred songs were determined, was to choose a select amount of songs to analyse in more detail. Each song was listened to and labelled with a genre representative of it's style. These genres were: Indie, Pop, Dance, R&B, Bedroom Pop, Hip

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[9] Duboff, Sam. "Made to Be Found." *Made to Be Found | Spotify for Artists, Spotify*, 2022, https://found.byspotify.com. Accessed 19 April 2023.

[10] An event in which Spotify reveals information concerning users' personal statistics and the best performing songs on the platform that year.

[11] A collection of data.

Hop, Ballad, Rock and Folk. Following this process, it was determined that if songs were selected from differing genres, analysis of those songs could yield conflicting data and thus, songwriting and production guidelines that contradict themselves. With this in mind, it was decided that songs would be chosen for further analysis from genres to which a large number of songs belonged to, and genres which were stylistically similar to these large genres. The largest genre was determined by counting the amount of songs in each genre. The distribution of the percentage of songs in each genre can be seen in the below chart (see fig.1).

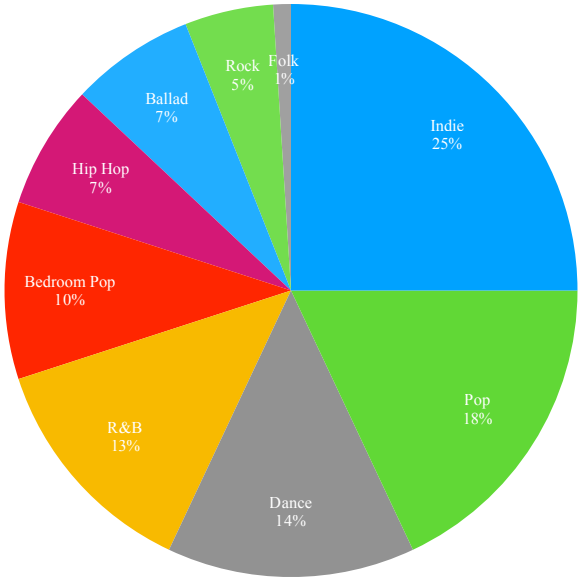

Fig.1 - Percentage distribution of amount of songs in each genre.

As seen in the above chart, the genre with the largest amount of songs was Indie. It was then decided that the chosen genres would be Indie and Bedroom Pop. Bedroom Pop was chosen due to being stylistically similar to Indie. It was decided that two songs would be chosen from each of the two genres for further analysis. The songs chosen were: 'Duvet Day' by Katie Phelan (Bedroom Pop), 'It Isn't Fair' by Piglet (Bedroom Pop), 'Sun Room' by Far Caspian (Indie) and 'All Ours' by Talos (Indie). These songs were chosen due to their variety in aesthetic, while also maintaining stylistic norms relative to their genre.

<u>The analysis of the songs.</u>

All one hundred songs of the playlist 'Best of Fresh Éire' were analysed in each of the following categories:

- Musical information

- Metadata[12]
- Social media statistics

The musical information analysed was as follows: tempo[13], time signature[14], key centre[15], genre and duration. These attributes were chosen as combined they give a basic description of each song, making them easier to compare against each other. The metadata analysed was: container[16] type, song title word count, time (seconds) until first lyric is heard and time (seconds) until first chorus. These metadata points were chosen to analyse as they would inform decisions relating to the production and publishing process of the song. The social media statistics analysed were: amount of streams on Spotify, amount of artist monthly listeners[17] on Spotify, amount of Instagram[18] followers, amount of TikTok[19] followers and amount of Twitter[20] followers. These statistics were analysed to give further context into the success and popularity of the artists featured on the target playlist. All of this data was recorded into a spreadsheet[21]

The four songs chosen for further examination were analysed in each of the following categories:

- Songwriting
- Production
- Mixing
- Mastering

[12] A set of data that describes and gives information about other data (eg., song title).

[13] The speed of the music, measured in beats per minute (BPM).

[14] Indicates how many beats make up a measure (bar) of music, and which note value is counted as a beat.

[15] The pitch or chord around which the music revolves.

[16] The format in which a song is held (eg., single, album).

[17] The amount of Spotify users who listen to the artist every month.

[18] https://www.instagram.com/

[19] https://www.tiktok.com/

[20] https://twitter.com/

[21] See Appendix A.

Following a meeting with the project's mentor, Peter Meighan, it was decided that these four songs would be purchased in a lossless[22] format due to the way Spotify compresses[23] and processes music for their platform. Purchasing the lossless versions of these songs would give more reliable analysis. The four songs were listened to and the following songwriting information was recorded: song structure, lyrical content, range of notes used in chorus vocal melody, shape of chorus vocal melody, length of chorus and style of singing. The song structure was analysed by marking down the sequence of sections in each song (verse, chorus, etc.), and counting the amount of bars contained in each section. Each of the songs' lyrics were analysed for the variety of words they used, and the frequency of the words used. The remaining information points were analysed by listening to each song's chorus vocal melody and transcribing them into notation[24] using the software MuseScore 4[25]. This information pertaining to songwriting, along with information recorded by analysing all one hundred songs, would assist in making informed decisions during the guideline development process of the project, specifically the songwriting guidelines.

The analysis of the four songs relating to Production dealt with the instrumentation of the songs and the arrangement[26] of the songs. The instrumentation was analysed by listening to each song and marking the instruments heard during the recording. The arrangement was analysed by listening to the songs and noting the instruments present in each section of the songs. This information would give insight into the production styles of the songs, which would be used to develop guidelines for the project.

The information analysed relating to mixing was as follows: prominence of each instrument in the mix, stereo width[27] of the mix and dynamics of the mix. The prominence of each instrument in the mix was determined by listening to a section of each song in which every instrument was present. All instruments heard would be noted and organised in order of most prominent to least. The stereo

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[22] A type of digital audio file format that does not remove any audio information when storing audio. This allows music in this format to be as similar to the original master file as possible.

[23] A process of shaping the range of loudness of an audio source to better fit into predetermined thresholds of loudness.

[24] See Appendix B, C, D and E.

[25] https://musescore.org/en

[26] The sequence of instrumentation changes in the song.

[27] The perceived width of audio in the stereo field (left to right).

width of the mix of each song was recorded by importing into the digital audio workstation (DAW) Pro Tools[28], and onto their own individual track (see fig.2).

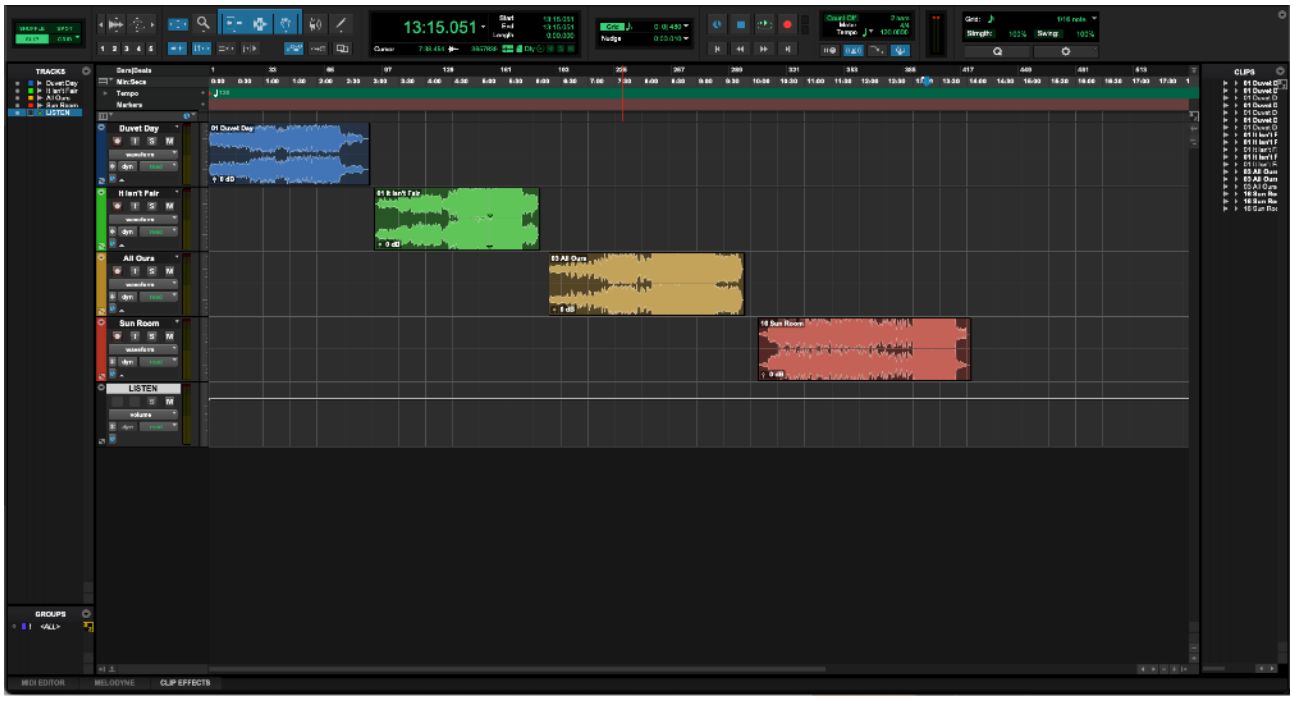

Fig.2 - Capture of the Pro Tools file used to analyse the songs. Each song is placed in it's own space in the project timeline and on it's own track.

The MeldaProduction[29] plugin[30] 'MMultiAnalyzer' was then placed on each track. Each song was monitored at their loudest section and the plugin was used to analyse the stereo width. A screenshot of the analysis was then taken for each song[31]. The dynamics of the songs were analysed by using a plugin by YouLean[32] called 'YouLean Loudness Meter'. This plugin was applied to each track. Each song was then played from beginning to end. The plugin monitored the change in dynamics throughout each song and once the song had ended, generated a visual representation of the song's dynamics. Each song's visual representation was then captured in a screenshot[33]. This mixing analysis would help when making development decisions for the production guidelines.

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[28] https://www.avid.com/pro-tools

[29] https://www.meldaproduction.com/

[30] A piece of software developed by a third-party designer that can be used in DAWs to effect or analyse audio.

[31] See Appendix F, G, H, and I.

[32] https://youlean.co/youlean-loudness-meter/

[33] See Appendix J, K, L and M.

The final area for analysis for the four chosen songs had to do with the mastering process. The mastering information analysed was: integrated loudness[34], true peak maximum[35] and loudness range[36]. As well as visually representing the dynamics of a song, the previously mentioned plugin 'YouLean Loudness Meter' is also capable of analysing all the information relating to mastering. The screenshots taken when analysing the dynamics[37] also contained all the necessary information needed for mastering. This information will be valuable when developing guidelines for the mastering process of the project. The mastering process is the final process performed on the song before it's published to Spotify and, therefore, must be dealt with carefully in order to preserve the integrity of the work completed during all stages of the project.

Development of songwriting and production guidelines.

Once the analysis of the songs was completed, the project could then move on to developing the songwriting and production guidelines that would influence the final product. Information from both the initial analysis of the one hundred songs, and the more detailed analysis of the four chosen songs was used to develop these guidelines. These guidelines are ordered in the following categories:

- Initial information
- Songwriting
- Production
- Mixing
- Mastering

Following the analysis of the top one hundred best performing songs, guidelines were created based on trends that were discovered. The tempo of the song would be between one hundred and fifteen and one hundred and twenty four BPM. The time signature of the song would be 4/4, or four crotchets[38] per bar. The song would be written in the key of C major. The song would be published to Spotify as a single. The title of the song would be one word, that would be based on a lyric in the

[34] The average loudness of the entire song.

[35] The loudness measurement of the loudest point in the song.

[36] The measurement between the loudest and quietest part of the song.

[37] See Appendix J, K, L and M.

[38] A rhythmic measurement in musical notation.

song. The first lyric of the song would be heard within the first fifteen seconds of the song. These guidelines were derived from the analysis of the top one hundred songs.

Once guidelines had been created using analysis of the top one hundred songs, more detailed guidelines were created using analysis of the four chosen songs. The songwriting guidelines were created using data collected from analysing the songs' structure, chorus vocal melody and lyrical content. It was decided that the project song would include between two and three verses. It was decided that after chorus sections, a musical break would be included before the beginning of the next section. The song would also include an introduction and outro[39] section at the beginning and end of the song. These guidelines were developed on trends that became visible through the analysis of the structure of the chosen four songs. It was decided that the range of the chorus melody[40] would be 10 semitones (st). The lyrics would also be sung using a mostly syllabic[41] style of singing. These guidelines were determined by transcribing each of the four chosen songs' melody into notation and analysing their similarities. The lyrics of the project song would be written using conversational and colloquial language and would also be written in first person perspective. These guidelines were designed by analysing the lyrical styles of each of the four chosen songs.

Moving from the songwriting guidelines, the production guidelines will now be discussed. Each of these guidelines were developed after analysing information relating to the arrangement of each of the four chosen songs. The arrangement of the project song would build in density and variety as the song progressed, starting off sparse and developing over time. This density would build until the outro, where the arrangement would become sparse again. Backing vocals would be included in choruses to give more intensity to the arrangement. The arrangement would also include an unconventional instrument or sound to make the song feel more unique. An example of an unconventional instrument would be a synthesiser[42] pad[43] sound. These guidelines were designed to best replicate the trends that were visible following analysis into the arrangement of each of the four chosen songs.

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[39] The final section of a song before it's conclusion, usually without lyrics or dense instrumentation.

[40] The distance between a melody's lowest and highest notes, measured in semitones.

[41] A style of singing in which each syllable of lyric is sung with it's own note.

[42] An electronic instrument that produces sound by manipulating electronic signals.

[43] A descriptive term for a synthesiser sound that denotes the use of a light feel, normally used as a background element.

The next process to discuss is mixing. Guidelines were developed for the mixing process by analysing the four chosen songs' individual instrument prominence, stereo width and dynamics. The lead vocal of the song would be the most prominent element in the mix. This guideline was decided based on the information discovered by analysing the individual instrument prominence of each of the four chosen songs. The elements of the mix that were the most prominent would be panned to the centre of the mix, while the less prominent elements would be panned further to the left and right. The decisions relating to the creation of these guidelines were made based on analysis done on the stereo width of each of the four chosen tracks. Similar to the arrangement of the project song, the dynamics would build over the course of the song. They would then come to a crescendo at the final chorus before reducing in the outro section. These guidelines were created using evidence found while analysing each of the four chosen songs' dynamics.

The final set of guidelines were related to the mastering process of the song. Each of the four chosen songs were analysed for the properties of their lossless master file. The average of each of these points of data between the four chosen songs were then calculated. These averages would then become the mastering guidelines. This process resulted in the following guidelines: a loudness range of between 10 and 15 loudness units[44] (LU), an integrated loudness range of -11.1 LUFS[45] and a true peak maximum of 0dB. Two of these guidelines, the true peak maximum and integrated loudness, were not used in the production process. The true peak maximum value of 0dB was unacceptable due to Spotify's policy of limiting[46] any audio over -1dB true peak maximum before it is released on their platform. This would change the sound of the song once it was published. Thus, the guideline for true peak maximum was decided to be -1dB. The integrated loudness was also unacceptable due to it being tied to the dynamics and aesthetic of the song. It was instead decided that the integrated loudness would fall in the range of -10 and -15 LUFS.

<u>The writing and production of the song.</u>

With each of the songwriting and production guidelines decided, the project could now move to the writing and production stage. The writing and production process can be split into five stages:

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[44] The form of measurement for perceived loudness.

[45] The form of measurement for perceived loudness over time.

[46] An aggressive form of compression.

- Planning
- Writing and pre-production
- Recording
- Mixing
- Mastering

Five studio sessions were booked to complete the writing and production of the project. Each session would last five hours. Killian Taylor would assist as recording engineer for these sessions. The sessions were scheduled as follows: January 13th, January 24th, February 3rd, February 10th and February 17th. There were thirteen days between the first and second sessions, the time between every other session was six days. This was planned so that more preparation could be done between the first and second session, as these sessions were designated for writing and pre-production[47]. The remaining four sessions would then be dedicated to the production of the song. The mixing and mastering process would take place remotely so that the production could be fully completed during the studio sessions. Following a meeting with the project's mentor, Peter Meighan, it was decided that due to timeline constraints, it would be best to hire a mastering engineer to complete the mastering process. It was decided that Killian Taylor would act as mastering engineer for the project. This was due to Taylor's knowledge in the area of mastering for Spotify editorial playlists. Taylor had previously mastered 'Margarita'[48] by YAWA, which was present in the playlist 'Best of Fresh Éire'. With the planning of the project completed, the writing and production could begin.

The first two sessions were dedicated to writing and pre-production. In the first session, song ideas were recorded and guitar and vocal recording techniques were auditioned. In the days between the first and the second session, these song ideas were pursued until one was chosen to further develop into the final song. The song was written in C major at a tempo of 115bpm, with a 4/4 time signature. The song was structured as follows: intro, verse, pre-chorus, chorus, post-chorus, verse, pre-chorus, chorus, post-chorus, chorus, outro. The lyrics were written in first person perspective, in a conversational style with an emotional theme[49]. The vocals were sung in syllabic style and the

[47] The process of deciding on the final sound of the song before the beginning of production.

[48] https://open.spotify.com/track/5wisfXVY6O0Bb5A2Dx6tPu?si=248f728305d94a79

[49] See Appendix N.

chorus vocal melody range was 10st[50]. The song was also written so the lyrics can be heard within the first fifteen seconds of the song. In the second session, decisions were made relating to the desired final aesthetic of the song. It was decided that the song would feature instrumentation of: lead vocal, backing vocals, acoustic guitar, electric guitar, electric lead guitar, bass guitar and synthesiser pad. This instrumentation would then be arranged to begin sparse and build up to a crescendo at the final chorus, then drop in dynamics during the outro. With the song fully written and pre-production decisions made, the project could move to the production stage.

During the first production session, the acoustic guitar and the piano were recorded. To achieve the desired result specified in the project guidelines, the following recording techniques were applied. The acoustic guitar was recorded using three microphones. An AKG 451 was positioned with it's diaphragm[51] eleven centimetres away from the twelfth fret[52] of the guitar. The diaphragm of the 451 was angled towards the point at which the neck and body of the guitar meet. This microphone its and position were chosen to capture the detail of the acoustic guitar in the low mid, high mid and high frequency[53] ranges. A Coles 4038 was positioned with its diaphragm pointed directly at the area between the bridge[54] of the guitar, and the end of the body, at a distance of sixteen centimetres. This microphone and it's position were chosen to capture the bass frequencies emitted by the acoustic guitar. The positions of these microphones can be seen in further detail below (see fig.3).

[50] See Appendix O.

[51] The component of a microphone that detects and transmits audio.

[52] A piece of metal placed into the neck of the guitar which, when the string is pressed down on the neck, allows a note to sound at the correct pitch.

[53]A way to describe the pitch of all sound which is perceived by humans, measured in hertz (Hz) and kilohertz (kHz). The full frequency range of human hearing is considered to be 20Hz-20kHz. This range can be further divided into smaller ranges: sub bass (20-60Hz), bass (60-300Hz), low mids (300Hz-1kHz), high mids (1-5kHz), highs (5-20kHz).

[54] The piece of the guitar that holds the strings to the body.

Fig.3 - The positioning of the AKG 451(right) and Coles 4038 (left) microphones during the recording of the acoustic guitar.

An AKG 414 was also positioned in the centre of the room roughly ten feet away from the guitar to capture the ambient sound during recording. The combination of these three microphones and their positions would give an accurate and malleable audio representation of the acoustic guitar in the room on the recordings. Each of the microphones were connected to a recording console[55] (an SSL G4000). The audio signals from the console were then connected to a digital to analogue converter[56], which allowed this signal to be recorded using Pro Tools. The acoustic guitar was recorded in multiple takes[57]. A compilation of these takes was then edited together which became the final recording of the acoustic guitar. This was done to ensure that the best performance possible was recorded for the duration of the acoustic guitar part. The piano was recorded using four microphones. A pair of Neumann U87 microphones were positioned with one between the lowest key and the centre key, and the other between the centre key and the highest key. Their diaphragms were angled at 45º toward the lowest and highest keys, respectfully, at a height of fifty centimetres

[55] A piece of audio equipment which can be used to amplify and effect audio signals before recording. Recording consoles can also be used to listen to audio that has been previously recorded.

[56] A piece of audio equipment which converts audio from analogue voltage to digital signals for recording using computers.

[57] An individual recording of a musical part.

above the keys and sixteen centimetres away from the soundboard[58] of the piano (see fig.4 and fig.5).

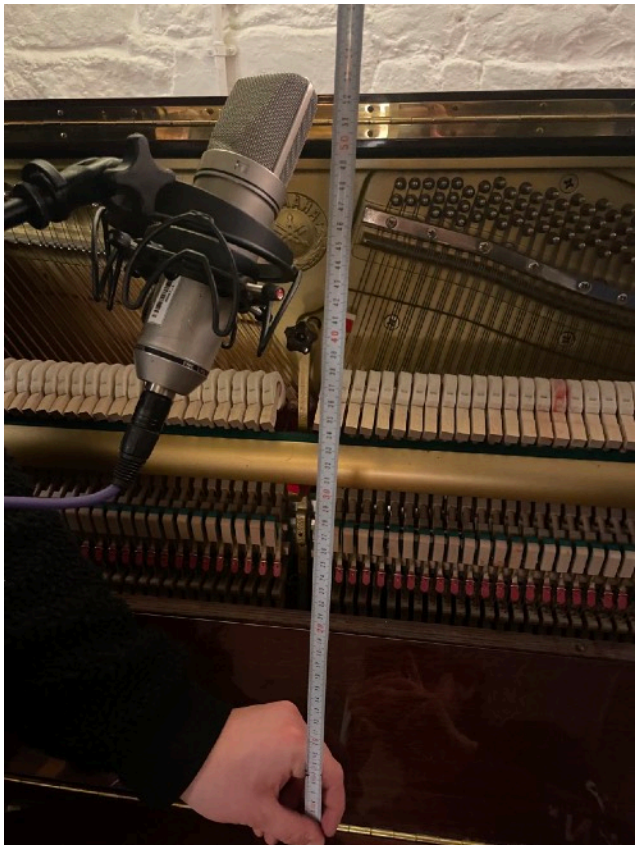

Fig.4 - The height of the Neumann U87s during the piano recording.

Fig.5 - The distance of the Neumann U87s from the piano's soundboard during recording.

The U87s would provide an accurate sonic representation of the piano in the room. A Coles 4038 was then placed fifty centimetres above the piano, facing directly down at the centre key. An AKG 414 was also placed in between the back of the piano and an adjacent wall, fifty centimetres above the ground. These two microphones were chosen and positioned to give the piano a unique and ambient sound on the recording, as the U87s would provide an accurate representation of the piano on their own. The microphones were connected to the recording console, which then connected to the digital to analogue converters for recording in Pro Tools. The piano, like the acoustic guitar, was recorded in takes which were then edited into a compilation.

[58] The component of a piano which holds the strings in place and amplifies their vibrations when struck.

The next week, in the second recording session the bass guitar and vocals were recorded. The bass guitar was recorded using a direct injection (DI) box[59]. The DI box was then connected to the console for recording. The bass was recorded in multiple takes which were edited into a compilation. This compilation would become the final bass recording of the song. The vocals were recorded using an AKG C12 VR, which is a tube powered microphone[60]. The decision to choose this microphone was made with the aim that the unique colouration of the microphone would help the lead vocals stand out in the mix. The lead vocals were sung fifteen centimetres away from the diaphragm of the microphone. The microphone was surrounded by sound dampening materials to achieve a more intimate sound on the recording. The lead vocal was recorded in several takes. The takes were then edited into a compilation of the entire lead vocal performance. The lead vocal was also pitch corrected using the Celemony[61] plugin 'Melodyne' (see fig.6).

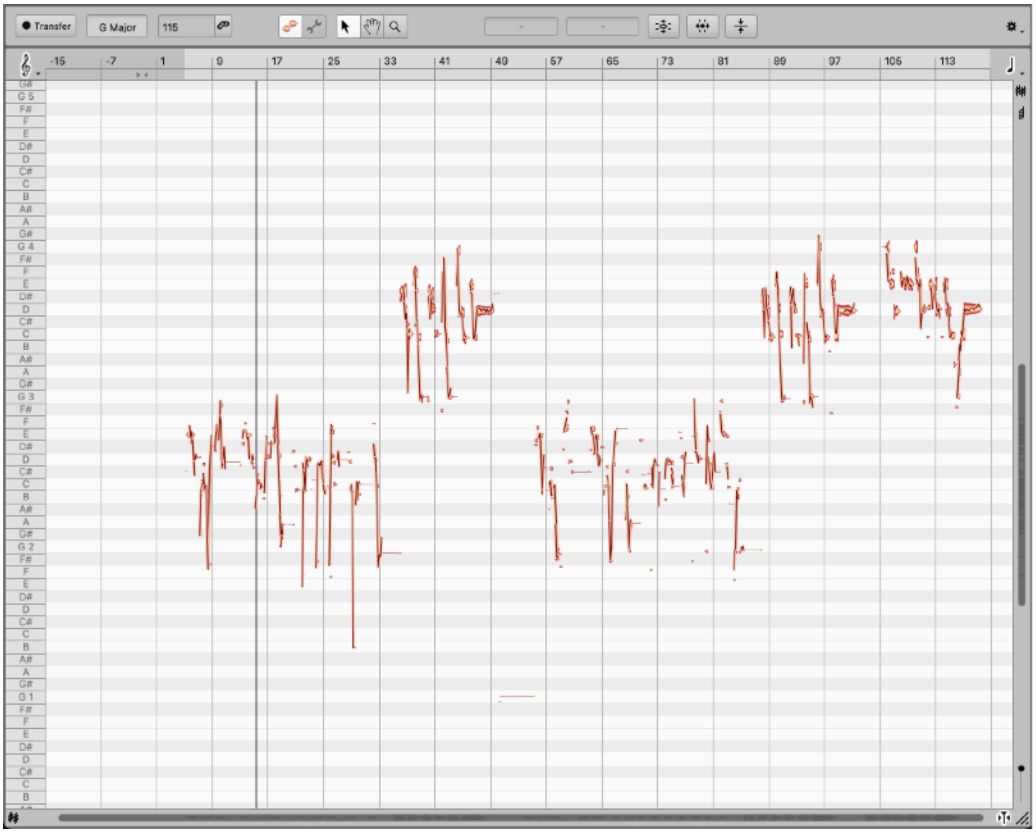

Fig.6 - The edit window of the lead vocal Melodyne processing.

[59] A piece of audio equipment that allows electric instruments (electric bass guitar, electric guitar, etc.) to be recorded without the use of an amplifier. Instead of connecting the instrument to an amplifier, it is connected to the DI box, which is then connected to the recording console.

[60] A type of microphone which operates using external power provided by a power supply. This power supply is manufactured using vacuum tubes. Tube powered microphones are known for their unique colouration of the audio they capture.

[61] https://www.celemony.com/en/start

The background vocals were also recorded in this session using a Shure SM7B microphone. The background vocals were recorded as an overdub[62], as they are only present in the third chorus of the song. The background vocals were performed twice and layered to create the effect of multiple singers performing at the same time. Each layer was recorded from start to finish. If the recording was useable, the next layer would be performed. This was done instead of recording multiple takes and compiling after the performance to save time, due to the short length of the backing vocal performances.

In the third production session, the electric guitar, lead guitar and synthesiser were recorded. The electric guitar and lead guitar were recorded through an amplifier. The electric guitar and lead guitar were also recorded using a DI box simultaneously as a backup in case the the amplifier recordings were not satisfactory. The electric guitar was recorded using two microphones (not including the DI box). A Shure SM57 and a Sennheiser MD421 were both placed two and a half centimetres away from the speaker, in between the edge of the speaker and the dust cap[63]. These microphones were chosen to record the electric guitar due to the variety of sounds their recordings could be manipulated into in the mixing process. The electric guitar was recorded as an overdub over the previous recordings. The lead guitar was recorded using a Royer 121 ribbon microphone[64]. This style of microphone was chosen due to the unique style of sound it provides in the low and high mid range of frequencies. The lead guitar consisted of two parts: one played using chords[65] and one played using single notes. Each of these parts were overdubbed on top of the previous recordings until their final recordings were both satisfactory. The synthesiser was recorded by connecting the output of the keyboard into a DI box, which was connected to the recording console. The synthesiser was overdubbed on top of the previous recordings until a satisfactory performance was captured due to it's short length. At the end of the third recording session, with all of the elements recorded and their best takes compiled, the Pro Tools session was prepared for the mixing process. Throughout the recording process of the project, incremental saving[66] was utilised to keep track of tasks completed and tasks yet to do (see fig.7).

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[62] A recording that is performed for only a portion of the song, usually over previously recorded material.

[63] A component at the centre of a speaker that prevents dust build up in the speaker.

[64] A type of microphone whose diaphragm consists of a strip of metal that vibrates when detecting audio. This vibration is then turned into electric current which can be recorded.

[65] A collection of three or more musical notes that are played simultaneously.

[66] The practice of creating a new save instance of a file for each action taken.

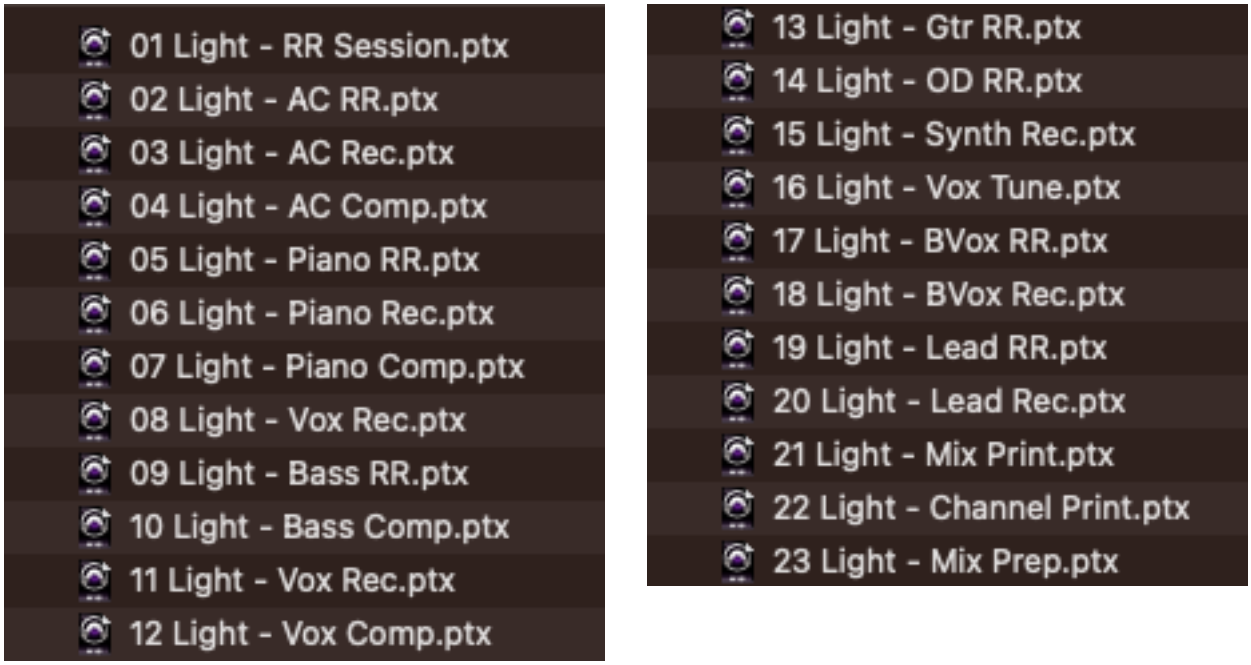

Fig.7 - Incremental saving evidence for 'Lighthouse' recording sessions.

With the recording of the song completed, the project could now move into the mixing stage. The recordings were exported to a new Pro Tools project. Several Instruments were recorded using multiple microphones, such as the acoustic guitar and piano. The multiple tracks of these instruments were balanced[67] together with the aim to create the best overall sound. The individual tracks of the acoustic guitar, electric guitar, piano and background vocals were also panned[68] in accordance with the previously decided guidelines regarding stereo width[69]. These tracks were then grouped together in Pro Tools to be effected as one for the remainder of the mixing process. This was done to simplify and streamline the mixing process. Then, the volume of each instrument was balanced together, so that each instrument could be audible when listening. Each instrument was then listened to individually, paying attention to the frequencies that each of them occupied. An equalisation[70] filter[71] was then applied to each instrument which attenuated[72] the frequencies in

[67] To alter the volume of recordings with the aim of hearing each element in a group of recordings.

[68] A mixing technique in which the volume of an audio element is altered differently in the left and right speakers, giving the impression of the element coming from the left or right of the mix rather than the centre.

[69] See Appendix Y.

[70] The volume alteration of specific frequencies in the frequency spectrum.

[71] The volume alteration of all frequencies past a set point on the frequency spectrum.

[72] To reduce to volume of audio.

which the instrument was not audible and frequencies which contained unwanted harmonics[73]. This was done to remove any unwanted noise from the song[74]. An example of this filtering can be seen below (see fig.8). All of these filters were effected using FabFilter[75]'s plugin 'Pro-Q 3'

Fig.8 - Electric guitar filtering.

Once the filtering was completed, each of the following elements were mixed in more detail: bass guitar, acoustic guitar, electric guitar, lead guitar, lead vocal, background vocals and synthesiser. The bass guitar was further effected using equalisation and compression from the SSL[76] plugin 'SSL Native Channel Strip 2'. It was decided that each instrument would be effected using this plugin. This was due to the fact that this plugin was a software emulation of the recording console used to record the song. Using this plugin on each instrument would created added cohesion in the song and apply a unifying sound to the entire song. The bass guitar was first equalised using the Channel Strip plugin. The frequency of 1.5kHz was increased in volume by 4.4dB, 700Hz was attenuated by 4.4dB and 80Hz was increased by 5.1dB. Next, compression was applied to the bass

[73] Ringing sounds that can be present in recordings and can be removed using equalisation.

[74] See Appendix P, Q, R, S, T, U, V, W and X.

[75] https://www.fabfilter.com/

[76] https://store.solidstatelogic.com/

guitar. The threshold[77] was set to -8.1dB, the ratio[78] was set to 6:1, the fast attack[79] was not engaged and the release[80] was set to 0.39 seconds. This achieved a total gain reduction[81] of 3dB. 'Native Channel Strip 2' automatically incorporated the correct amount of makeup gain[82] to the effected audio based on the level of gain reduction. These levels of equalisation and compression were chosen to keep the natural feeling of the performance of the bass guitar, while also helping it sit better in the low frequency range of the mix[83]. The acoustic guitar was equalised using the following settings. 7.5kHz was increased by 2.7dB, 1.15kHz was increased by 7.6dB and 800Hz was attenuated by 3dB. The threshold for the acoustic guitar was set to 0.4dB, the ratio was set to 6:1, the fast attack was engaged and the release was set 0.10 seconds. This compression setting effected 6dB of gain reduction. These levels of equalisation and compression were applied to help the acoustic guitar fit better in the low and high mids of the mix. The acoustic guitar was also effected using a chorus[84] plugin from Soundtoys[85] called 'MicroShift'. This was done to give the acoustic guitar more clarity in the high frequencies[86]. The next instrument to be effected in more detail was the piano. 7.5kHz was increased by 5dB, 3.6kHz was increased by -3.2dB, 600Hz was increased by 5.7dB and 185Hz was increased by 2.1dB. The compression setting of the piano are as follows. The threshold was set to -2.3dB, the ratio was set to 2.3:1, the fast attack was not engaged and the release was set to 0.10 seconds. This compression setting effected 3dB of gain reduction on the piano. These settings of the equalisation and compression of the piano were chosen to help the piano fit better in the mix in the low and high mid frequency ranges. The electric guitar, lead guitar

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[77] The minimum level of volume the effected audio must reach to activate compression. Any audio below this level will be unaffected. Any audio above this level will be attenuated.

[78] The amount of compression that occurs relative to the amount of dB the audio is above the set threshold. For example, if the ratio is set to 6:1, for every 6dB of volume the audio is above the threshold, it will be attenuated by 1dB.

[79] The speed at which compression is applied once audio is detected above the set threshold. Native Channel Strip 2 has two settings for attack: normal attack or fast attack. If fast attack is not engaged, the compressor is set to normal attack.

[80] The amount of time until the compressor disengages once the audio has fallen below the set threshold.

[81] The amount of gain attenuated from the audio after compression.

[82] Gain that is applied after the attenuation of compression has taken place to increase the audios volume to the same level it was at before compression.

[83] See Appendix Z.

[84] An audio effect which duplicates its source sound and manipulates the pitch of the copy over time to create an impression of multiple instances of the same audio source.

[85] https://www.soundtoys.com/

[86] See Appendix AA.

and synthesiser were already satisfying to listen to in the mix after being balanced, panned and filtered, and so were not effected by equalisation or compression. This leaves the next element of the mix to be effected as the lead vocal. The lead vocal was equalised by using 'Pro-Q 3', for more detailed equalisation settings than the 'Native Channel Strip 2'. 138Hz was increased by 1.3dB, 1.4kHz was attenuated by 1.3dB, 4.2kHz was increased by 2dB and 15kHz was increased by 0.8dB. A de-esser[87] plugin from Waves[88] was then used. The target frequency of the de-esser was set to 5.6kHz and the threshold was set to -30dB. This results in a gain reduction of 3dB when unpleasant "s" sounds are sung. The vocal was then compressed using the 'Native Channel Strip 2'. The threshold was set to -5.3dB, the ratio was set to 4.8:1, the fast attack was not engaged and the release was set to 0.10 seconds. These settings resulted in a gain reduction of 6dB. All of this equalisation, de-essing and compression adds up to help the vocals sit at the front of the mix, mainly in the low and high mids[89]. Once each of the above mentioned elements had been equalised and compressed, a reverb[90] plugin by Soundtoys called 'LittlePlate' was placed on an auxiliary effect return track[91]. The decay[92] of the reverb was set to 2 seconds. There was also an instance of the 'Pro-Q 3' plugin to apply equalisation filtering to the low and high frequencies. This was done to make sure the effected sound would be heard only in the mid frequency ranges[93]. The following elements of the mix were sent to this reverb return track: acoustic guitar, background vocals, electric guitar, lead guitar, lead vocal, piano and synthesiser[94]. This reverb was added to further tie the separate elements together in the mix to create amore cohesive sound when listening. After the instruments were sent to the reverb, the final balance of the elements was tweaked slightly. Due to the production process up to this point, and the arrangement of the instrumentation, the dynamics of the song were already to the desired standard of beginning at a low intensity and building to a crescendo at the final chorus, to dropping in dynamics at the outro. The final mix was exported in

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[87] A compressor whose threshold can be targeted at specific frequencies to attenuate the sharp sounds that the singing of letters such as s, and f can produce on an audio recording.

[88] https://www.waves.com/products

[89] See Appendix BB.

[90] An audio effect which replicates the sound of audio reverberating around a physical room.

[91] A track which can be created in the session and effected, does not directly process audio. Instead, audio is sent from other tracks in the session to be effected. This allows for the affected portion of a track to be kept separate from the unaffected (dry) signal.

[92] The time it takes for the effect of the reverb to become silent once the sent audio has stopped playing.

[93] See Appendix CC.

[94] See Appendix DD.

preparation for mastering. The integrated loudness, true peak maximum and loudness range of the final mix were also measured in preparation for mastering[95]. Similar to the recording process, incremental saving was also utilised for the mixing process (see fig.9).

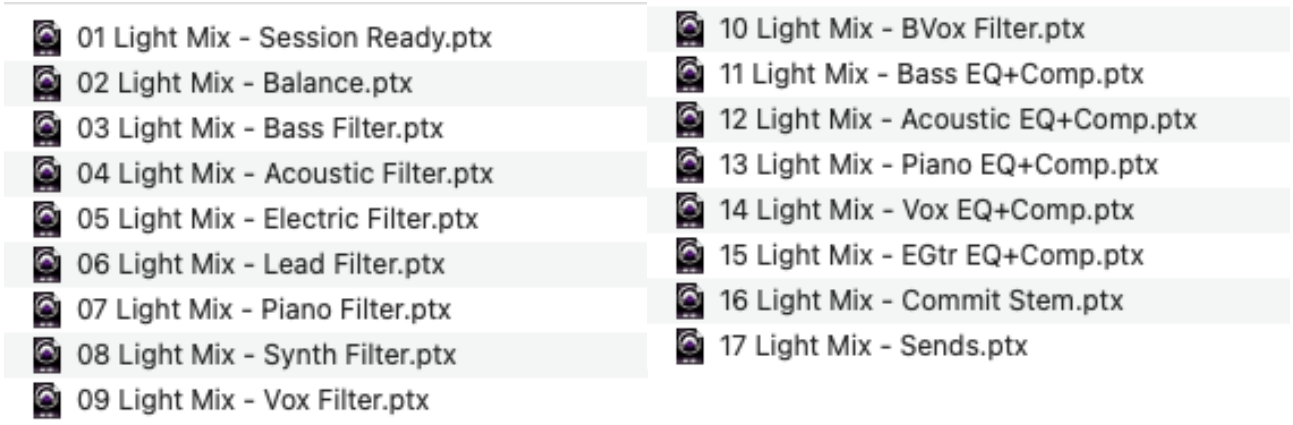

Fig.9 - Incremental saves of the project mixing process.

With the final mix of the song completed, the final step in the production process was the mastering of the song. The mastering took place in Killian Taylor's private studio. Before mastering, the integrated loudness of the song was -19.0 LUFS, the true peak maximum was -1.0dB and the loudness range was 16.9 LU[96]. It was decided on the recommendation of Killian Taylor to stem master[97] the song. Killian then mastered the song in accordance with the decided mastering guidelines of between -10 and -15LUFS integrated loudness, no more than -1dB true peak maximum and a loudness range of between 10 and 15 LU. Once Killian had completed his master, the integrated loudness of the song was -14.2 LUFS, the true peak maximum was -1.0dB and the loudness range was 13.7 LU[98]. The song was now ready to be published to streaming services, promoted and applied for Spotify editorial playlists.

The publishing and promotion of the song and applying to editorial playlists.

The publishing of the songs to streaming services was done using the service DistroKid[99] The final master was uploaded to their website and published on the 24th of February, with a scheduled

[95] See Appendix EE.

[96] See Appendix EE.

[97] A technique of mastering in which, instead of effecting the entire song, each mixed element of the song would be exported separately. This can allow mastering engineers more flexibility in the mastering process.

[98] See Appendix FF.

[99] https://distrokid.com/

release date six weeks in the future on the 7th of April. This would allow time for Spotify to receive the song and prepare for it's release date. Cover art for the song was also uploaded. The song was titled 'Lighthouse' due to the decided guideline of a one word title. The song was also uploaded as a single as per the previously decided guidelines.

On the 10th of March, the song was applied to Spotify editorial playlists through the Spotify for Artists[100] website. The application consisted of multiple questions. The first question was "What is this song's main genre?" The answer given was 'Alternative'. The next question was "Choose up to 2 music cultures." The options provided were:

- African
- Arabic
- Asian
- Buddhist
- Caribbean
- Celtic
- Hindu
- Indigenous
- Islamic
- Judaic
- Latin
- Sikh
- South Asian
- "None of these"

The option "None of these" was chosen as the song produced fit into none of these cultures. The next question was "Choose up to 2 moods." The following options were provided:

- Chill
- Energetic
- Happy
- Fierce
- Meditative

[100] artists.spotify.com

- Romantic
- Sad
- Sexy
- “None of these”

The options “Sad” and “Meditative” were chosen as they best described the song’s mood out of the words provided. The following question was “Choose up to 2 song style”. The options were:

- Acoustic
- Ballad
- Beats
- Experimental
- Holiday
- Traditional
- “None of these”

The options chosen were “Acoustic” and “Ballad” as they best described the song out of the words provided. The next question asked for the language in which the lyrics of the song were written. English was chosen, as the lyrics were written in English. The next three questions required the answer “yes” or “no”. The answer to the question “Is this a cover?”, was “no”, as the song was written for the project. The answer for “Is it a remix?”, was also “no” as no other producer had worked on the song. The answer for “Is it an instrumental?”, was also “no” as the song contains lyrics. The next question asked “How was it recorded?”, with the options “Studio” or “Live”. “Studio” was chosen due to the fact that the song was recorded in a recording studio. The next question asked “What instruments are on this song?”, with the following options:

- Accordion
- Acoustic Guitar
- Banjo
- Bass Guitar
- Buzuq
- Cello
- Clarinet
- Djembe
- Drum Kit

- Electric Guitar
- Erhu
- Flute
- Harmonica
- Harp
- Kora
- Mandolin
- Mbira
- Oboe
- Organ
- Oud
- Pedal Steel Guitar
- Piano
- Samples
- Sanxian
- Sarod
- Saxophone
- Sitar
- Steel Drum
- Synthesiser
- Tabla
- Trombone
- Trumpet
- Ukulele
- Violin
- Xylophone

From this list of options, “Acoustic Guitar”, “Bass Guitar”, “Drum Kit”, “Electric Guitar”, “Piano” and “Synthesiser” were selected to best represent the instrumentation of the song. The next question in the application is “What city do you most identify with? This can be your hometown, where you started making music, or where you feel the strongest cultural connection.” “Dublin” was chosen as the answer for this question, as the target playlist is based around Irish music. The final question of the application is “Describe your song for us. Is there anything else you want us to know? The story behind the song; what inspired it; your plans for promoting it; etc.” The word limit on this answer is

five hundred words. The answer for this question was informed by the answer given to this question during the application for playlisting for the control song, ‘Endlessly’. This answer was fifty words long, and gave a brief description the thematic meaning of the song, as well as plans for promoting the song. This format was replicated for the application of the project’s song to keep a consistent application process between the two songs[101]. The application was then reviewed and submitted for consideration by Spotify playlist editors.

The final process to complete was the promotion of the song prior to the date of release. In the six weeks leading to the release of the song, several local music publications were contacted via email with a message detailing the date of release of the song and inquiring about the song being featured on their respective platforms. The email also included links to listen to the final master of the song and links to relevant social media accounts. The content of this email message, as well as the specific publications that were contacted were chosen due to the fact that during the promotion of ‘Endlessly’, these were the same choices made. This consistency meant that any information analysed regarding ‘Lighthouse’s performance on Spotify could be directly linked to the songwriting and production decisions made during the project, and not to promotional techniques. With this idea in mind, ‘Lighthouse’ was promoted on the social media platforms Instagram and TikTok in the same amount of posts as ‘Endlessly’. With the promotion of the song concluded, the final step in the process was the release day of the 7th of April.

In the methodology of each of the following areas were discussed: the selecting of the target playlist, the analysis of songs, the developing of guidelines, the songwriting and production, and the publishing and promotion. With these completed and the song released, the next area to be discussed is the analysis of the project.

[101] See Appendix GG.

Analysis

Following on from the discussion of the project's methodology, the results of the project will now be analysed. This analysis will highlight knowledge gained from these results, as well as the strengths and weaknesses of the chosen processes.

The analysis of this project will be discussed in five sections:

- Results of the analysis of the top one hundred best performing songs on 'A Breath of Fresh Éire'.
- Results of the analysis of the four songs chosen for further examination.
- Songwriting and production process.
- Publishing and promotion process.
- The performance of the song on Spotify one week after release.

Results of the analysis of the top one hundred best performing songs on 'A Breath of Fresh Éire'.

The top one hundred songs were analysed in three areas:

- Musical information
- Metadata
- Social media statistics.

Musical Information

Key Distribution

Key Centre	Amount of Songs
A	6
A#	4
Am	9
A#m	2
B	2
Bm	2
C	9
C#	2
Cm	3
C#m	7
D	12
D#	1
Dm	3
D#m	2
E	7
Em	4
F	2
F#	4
Fm	2
F#m	4
G	6
G#	0
Gm	3
G#m	2
Multiple Keys	2

Key Gender Distribution

Key Gender	Amount of Songs
Major	55
Minor	43
Multiple Genders	2

Key with Relative Minor Distribution

Key/Relative Minor	Amount of Songs
C/Am	18
D/Bm	14
E/C#m	14
A/F#m	10
G/Em	10
A#/Gm	7
F#/D#m	6
F/Dm	5
C#/A#m	4
D#/Cm	4
G#/Fm	4
B/G#m	2

Fig.10 - The results of the analysis of key centres.

BPM Range Distribution

BPM Range	Amount of Songs
170-175	2
165-169	0
160-164	0
155-159	1
150-154	1
145-149	5
140-144	3
135-139	4
130-134	2
125-129	6
120-124	12
115-119	11
110-114	6
105-109	6
100-104	6
95-99	6
90-94	3
85-89	2
80-84	6
75-79	5
70-74	2
65-69	6
60-64	1
55-59	0
50-54	3

Time Signature Distribution

Time Signature	Amount of Songs
4/4	93
6/8	7

Fig.11 - Results of analysis of BPM and time signature.

Duration Distribution

Duration Range	Amount of Songs
5:50-6:00	1
5:40-5:49	0
5:30-5:39	0
5:20-5:29	1
5:10-5:19	2
5:00-5:09	2
4:50-4:59	1
4:40-4:49	2
4:30-4:39	6
4:20-4:29	3
4:10-4:19	5
4:00-4:09	8
3:50-3:59	4
3:40-3:49	4
3:30-3:39	11
3:20-3:29	6
3:10-3:19	12
3:00-3:09	8
2:50-2:59	7
2:40-2:49	2
2:30-2:39	5
2:20-2:29	3
2:10-2:19	4
2:00-2:09	1
1:50-1:59	1

Fig.12 - Results of analysis of song duration.

The information gained from the above analysis of key centres (see fig.10) is as follows:

- The most used key centre was D major, with 12 songs using it. Only two songs changed in key during their playback. An observation that can be made from this analysis is that songs written in D major were more likely to be placed in the target playlist.
- There were 55 songs that were written in major keys, 43 in minor keys and 2 songs used both major and minor keys. Observations that can be made using this data are that songs written in major keys had a slightly higher likelihood of achieving placement on the target playlist, and that songs that were written using both major and minor keys were less likely to be selected for editorial playlisting.
- When combining the number of songs written in a major key with the number of songs written in the relative minor[102] of that key, the three most used keys were: C/Am (18), D/Bm (14) and E/C#m (14). These make up for 46% of all songs. This would suggest that songs written in these keys were more likely to be selected for placement on the target playlist.

Analysis of the data seen in fig.11 is as follows:

- The two most used tempo ranges were 115-119BPM and 120-124BPM. An observation that can be made about this data is that songs written within the tempo range of 115-124BPM were more likely to be placed in the target playlist.
- Ninety three song out of one hundred were written using the 4/4 time signature (93%). Seven songs were written in 6/8 (7%). An observation that can be made about this information is that songs that were written in 4/4 were more likely to achieve placements on the target playlist.

The analysis of song duration as seen in fig.12 is as follows:

- The most used durations were 3:00-3:09 and 3:30-3:39. This evidence suggests that songs written between the lengths of 3:00-3:39 would have been more likely to achieve placements on the target playlists.

[102] A minor key which contains all of the same notes of the major key, but begins on the sixth note of that major key.

Metadata

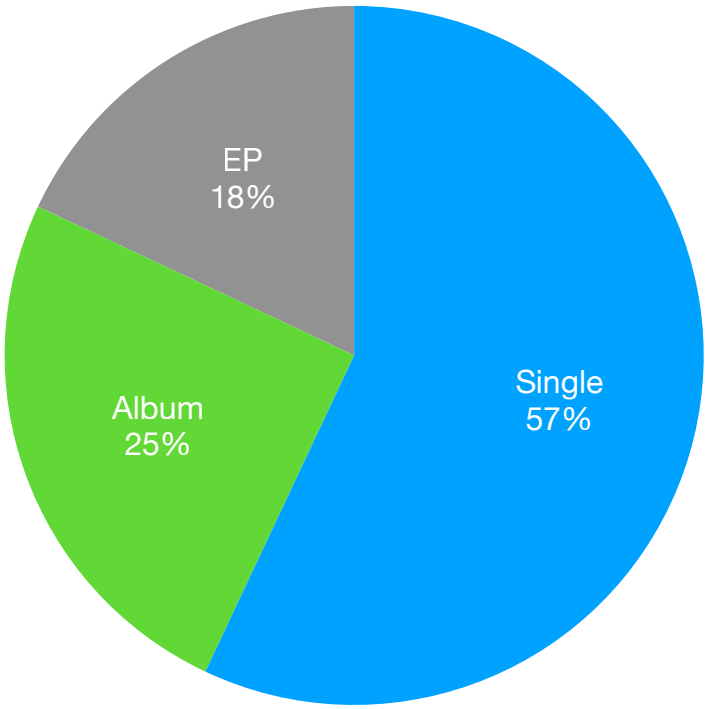

Fig.13 - Results of analysis of song container types.

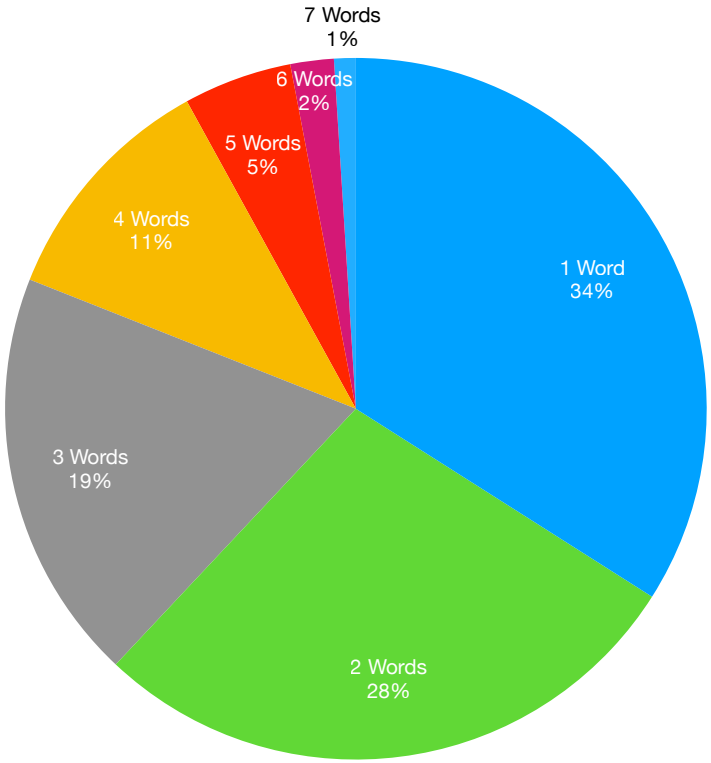

Fig.14 - Results of analysis of song title word count.

Time until lyrics Distribution

Time Range	Amount of Songs
0:00-0:04	24
0:15-0:19	22
0:10-0:14	18
0:05-0:09	9
0:25-0:29	8
0:20-0:24	6
0:35-0:39	5
0:30-0:34	3
No Lyrics	2
1:00-1:05	1
0:55-0:59	1
0:50-0:54	1
0:45-0:49	0
0:40-0:44	0

Time until chorus Distribution

Time range	Amount of Songs
0:41-0:50	21
0:51-1:00	19
0:31-0:40	18
1:01-1:10	13
0:21-0:30	9
1:11-1:20	5
0:00-0:10	4
1:21-1:20	3
0:11-0:20	2
1:41-1:50	2
1:51-2:00	2
1:31-1:40	1
2:01-3:00	1

Fig.15 - Results of analysis of time until first lyric and time until first chorus.

The analysis of the data shown in fig.13 is as follows:

- 57% of songs examined were published to Spotify as singles. An observation that can be made from this data is that songs published to Spotify as singles had a higher chance of being placed on the target playlist.

The analysis of the data seen in fig.14 is as follows:

- 28% of song titles contained two words and 34% of titles contained one word. That accounts for 62% of all songs examined. This suggests that songs with titles containing two words or less were more likely to achieve placements on the target playlist.

The analysis of the data seen in fig.15 is as follows:

- In 24% of songs, lyrics could be heard within the first four seconds. In 64 songs, lyrics could be heard within the first nineteen seconds. This evidence suggests that songs in which lyrics were heard in the first nineteen seconds were more likely to achieve placements on the target playlist.

- 40% of the songs examined featured a chorus within the first minute of playback. An observation that can be made from this evidence is that songs which featured choruses within their first minute of playback were more likely to be placed on the target playlist.

Social media statistics

Stream Distribution

Stream Range	Amount of Songs
0-10,000	3
10,000-50,000	25
50,000-100,000	11
100,000-500,000	44
500,000-1,000,000	5
1,000,000-5,000,000	7
5,000,000-10,000,000	3
10,000,000-20,000,000	2

Listener Distribution

Listener Range	Amount of Artists
0-1000	4
1000-10,000	13
10,000-50,000	18
50,000-100,000	10
100,000-500,000	18
500,000-1,000,000	5
1,000,000-2,000,000	4
>2,000,000	1

Fig.16 - Results of analysis of Spotify statistics.

Social Media Following Distribution

Follower Range	Instagram	TikTok	Twitter
0-1000	4	34	20
1,000-10,000	40	24	28
10,000-50,000	26	6	6
50,000-100,000	2	3	2
100,000-150,000	0	1	0
150,000-200,000	0	1	0
200,000-250,000	1	0	0
>250,000	1	0	0
No Account	0	5	18

Fig.17 - Results of analysis of artists social media followings.

The analysis of the data seen in fig.16 is as follows:

- 61 of the songs examined had one hundred thousand streams or more as of the time of analysis (19th of April 2023). An observation that can be made about this information is that songs that had achieved placements on the target playlists were likely to gain success on Spotify.
- In both the monthly listener ranges of 10,000-50,000 and 100,000-500,000, 18 artists were recorded in that range. This suggests that artists that achieved placements on the target playlist, were likely to gain more monthly listeners.

The analysis of the data seen in fig.17 is as follows:

- The most used social media platform by artists who achieved placements on the target playlist was Instagram (74 artists). An observation that can be made using this information is that artists with a presence on Instagram were more likely to achieve placements on the target playlist.

With the analysis of the examination of the top one hundred songs completed, the analysis of the examination of the four chosen songs will now be discussed.

<u>The results of the analysis of the four songs chosen for further examination.</u>

Each of the four songs were examined in several areas:

- Songwriting
- Production
- Mixing
- Mastering

<u>Songwriting</u>

Sun Room

Section
Intro
Verse
Chorus
Verse
Chorus
Break
Verse
Chorus
Break
Bridge
Outro

All Ours

Section
Intro
Verse
Break
Chorus
Verse
Chorus
Bridge
Chorus

It Isn't Fair

Section
Verse
Bridge
Verse
Bridge
Chorus
Break
Verse
Chorus
Outro

Duvet Day

Section
Intro
Verse
Pre-Chorus
Chorus
Post-Chorus
Verse
Pre-Chorus
Chorus
Outro

Fig.18 - Structure analysis of the four chosen songs.

Lyrical Analysis

Word	Frequency
am	6
Why	5
today	5
Oh	5
know	5
don't	5
what	4
we'll	4
the	4
Say	4
mm	4
me	4
just	4
it's	4
I'm	4
You	3
to	3
tired	3
so	3
duvet	3
day	3
another	3
way	2
up	2
train	2
tires	2
those	2
running	2
Raining	2
outside	2
one	2
on	2
okay	2
of	2
not	2
my	2
like	2
it	2
i've	2
home	2
here	2
he	2
get	2
for	2
done	2
days	2
but	2
bone	2
anything	2
alright	2
a	2
wouldn't	1
where	1
sleeps	1
shy	1
Planned	1
paid	1
now	1
man	1
loves	1
if	1
happy	1
feeling	1
baby	1
Cause	1

Fig.19 - Lyrical analysis of 'Duvet Day'.

Lyrical Analysis

Word	frequency
it	26
Isn't	24
fair	16
the	6
will	5
you	4
no	4
is	4
To	3
Than	3
state	3
So	3
Much	3
more	3
In	3
Deserve	3
why	2
we	2
through	2
they	2
on	2
nothing	2
not	2
if	2
hide	2
got	2
feel	2
allow	2
your	1
you've	1
wide	1
ell	1
waiting	1
wait	1
wade	1
up	1
unsafe	1
turned	1
trying	1
Torn	1
tissues	1
this	1
themselves	1
that	1
telling	1
surprising	1
stuck	1
something	1
sneezes	1
skull	1
Should	1
provide	1
pockets	1
out	1
our	1
oh	1
night	1
mouth	1
misgendered	1
lives	1
lists	1
line	1
Letters	1
let	1
left	1
leaving	1
its	1
I've	1
I'm	1
helping	1
go	1
clinic	1
can't	1
Bloody	1
bins	1
better	1
at	1
Around	1

Fig.20 - Lyrical analysis of 'It Isn't fair'.

Lyrical Analysis

Word	Frequency
the	18
In	15
when	9
I'll	9
Are	9
wild	7
leave	7
a	7
our	6
gardens	6
your	5
over	5
War	4
of	4
I	4
and	4
water	3
warnings	3
that	3
temples	3
stay	3
snow	3
Out	3
night	3
memories	3
lands	3
it's	3
I'm	3
Hunted	3
hide	3
heed	3
godless	3
foaming	3
darkest	3
coming	3
by	3
blinded	3
alight	3
til	3
You're	2
While	2
we	2
Waited	2
lie	2
know	2
garden	2
Eyed	2
California	2
you	1
with	1
whole	1
who	1
where	1
weeks	1
we're	1
wait	1
taped	1
subsiding	1
speak	1
Siege	1
shoulders	1
sees	1
sea	1
Salt	1
right	1
on	1
now	1
love	1
lake	1
keeps	1
harboured	1
gods	1
get	1
Formed	1
for	1
feet	1
divine	1
divide	1
dawns	1
cupboards	1
corners	1
Cedars	1
canyon	1
calls	1
at	1
All	1

Fig.21 - Lyrical analysis of 'All Ours'.

Lyrical Analysis

Word	Amount of Repetitions
you	9
The	7
in	6
To	5
It	5
Now	4
your	3
There	3
how	3
around	3
you're	2
wondering	2
when	2
was	2
oh	2
me	2
is	2
I	2
found	2
Felt	2
colder	2
called	2
and	2
air	2
a	2
wishing	1
were	1
waiting	1
up	1
toll	1
Time	1
then	1
that	1
tell	1
Take	1
sunroom	1
summer	1
Still	1
staring	1
sound	1
soul	1
so	1
Seemed	1
seem	1
Saw	1
pulling	1
own	1
out	1
older	1
Not	1
Nerve	1
make	1
laying	1
lake	1
just	1
Its	1
I'm	1
home	1
here	1
hear	1
head	1
harder	1
hair	1
gone	1
for	1
Folded	1
Find	1
fell	1
feeling	1
evening	1
down	1
doesn't	1
couldn't	1
Ceiling	1
care	1
by	1
At	1
Astounded	1
Age	1

Fig.22 - Lyrical analysis of 'Sun Room'.

Chorus Melody Range

Song Name	Chorus Melody Range (st)
Duvet Day	10
Sun Room	9
All Ours	7
It Isn't Fair	14

Fig.23 - Ranges in semitones of the chorus melodies of each of the four songs.

Analysis of the information shown in fig.18 is as follows:

- Each song contained two to three verses. An observation that can be made from this information is that songs written to include two to three verses were more likely to achieve placement on the target playlist.
- Three of the four songs contained instrumental breaks. This suggests that songs that feature instrumental breaks were more likely to be placed on the target playlist.
- Three of the four songs featured and introduction and outro at the beginning and ending respectively. An observation can be made based on this information that songs that include introductions and outros at their beginnings and endings were more likely to achieve placements in the target playlist.

Analysis of the information presented in fig.19, fig.20, fig.21 and fig.22 is as follows:

- All four songs were written in first-person perspective, using words like 'I', 'you' and 'our'. This suggests that songs with lyrics written in first-person perspective were more likely to be placed on the target playlist.
- Each song's lyrics were written in a conversational style. An observation that can be made from this information is that song whose lyrics were written in a conversational style had an increased likelihood of achieving placements on the target playlist.
- The lyrics of each song also contains the title of the song. This suggests that songs whose lyrics contain their title were more likely to be placed on the target playlist.

Analysis of the information presented in fig.23 is as follows:

- The range of the songs chorus melodies was 7-14st. An observation that can be made from this information is that songs with chorus melodies whose ranges were between 7st and 14st were more likely to be selected for placement on the target playlist.

Production

Production and Arrangement

	Intro	Verse 1	Pre-Chorus 1	Chorus 1	Post Chorus 1	Verse 2	Pre-Chorus 2	Chorus 2	Outro
Bar(s)	1-8	9-25	26	27-43	44	45-61	62	63-79	80-96
Lead Vocal									
Backing Vocal									
Vocal Samples									
Acoustic Guitar									
Lead Acoustic Guitar									
Fingerpicked Guitar									
Bass Guitar									
Piano									
Echo Line									
Synth Lead									
Synth Pad									
Drums									

Fig.24 - ‘Duvet Day’ instrumental arrangement.

Production and Arrangement

	Verse 1	Bridge 1	Verse 2	Bridge 2	Chorus 1	Break	Verse 3	Chorus 3	Outro
Bar(s)	1-8	9-13	14-22	23-27	28-34	35-39	40-49	50-62	63-69
Guitar									
Lead Vocal									
Backing Vocal									
Drums									
Percussion									
Brass									
Bass									
Fingerstyle Guitar									
Synth									
Piano									

Fig.25 - ‘It Isn’t Fair’ instrumental arrangement.

Production and Arrangement

	Intro	Verse 1	Break	Chorus	Verse 2	Chorus 2	Bridge	Chorus 3
Bar(s)	1-6	7-19	20-23	24-33	34-40	41-50	51-63	64-73
Pad								
Backing Vocal								
Lead Vocal								
Arpeggio Synth								
Drums								
Bass								
Lead Synth								
Hihats								

Fig.26 - ‘All Ours’ instrumental arrangement.

Production and Arrangement

	Intro	Verse 1	Chorus 1	Verse 2	Chorus 2	Break 1	Verse 3	Chorus 3	Break 2	Bridge	Outro
Bar(s)	1-8	9-17	18-22	23-31	32-40	41-49	50-58	59-67	68-76	77-85	86-90
Keyboard											
Fingerstyle Guitar											
Lead Vocal											
Bass											
Backing Vocals											
Lead Synth											
Lead Guitar											
Arpeggio Synth											
Synth Pad											
Octave Guitar											
Percussion											

Fig.27 - ‘Sun Room’ instrumental arrangement.

The analysis of the information displayed in fig.24, fig.25, fig.26 and fig.27 is as follows:

- Each song begins with a sparse arrangement which builds in density over the course of the song. An observation that can be made based on this information is that songs which began with sparse arrangements which built up over time would have been more likely to have been placed on the target playlist.
- Each song features their most dense arrangements in their final chorus. This suggests that songs which positioned their most dense arrangements with their final chorus, would be more like to have been selected for placement on the target playlist.

- After the crescendo in the final chorus, each song returned to a sparse arrangement for their final section. An observation that can be made from this information is that songs which arranged sparse instrumentations in their final sections were more likely to be chosen for the target playlist.

Mixing

It Isn't Fair

Instrument
Lead Vocal
Guitar
Bass
Backing Vocal
Drums
Piano
Fingerstyle Guitar
Synth
Brass
Percussion

All Ours

Instrument
Lead Vocal
Pad
Backing Vocal
Arpeggio Synth
Bass
Lead Synth
Drums
Hihats

Duvet Day

Instrument
Drums
Fingerpicked Guitar
Lead Acoustic Guitar
Synth Pad
Acoustic Guitar
Echo Line
Piano
Vocal Samples

Sun Room

Instrument
Fingerstyle Guitar
Bass
Lead Guitar
Keyboard
Lead Vocal
Backing Vocals
Synth Pad
Lead Synth
Octave Guitar
Arpeggio Synth
Percussion

Fig.28 - Prominence of each element in each of the four songs.

The analysis of the information shown in fig.28 is as follows:

- Three of the four songs feature the lead vocal as the most prominent element in the mix. This suggests that the songs in which the lead vocal is their most prominent element were more likely to be chosen for placement on the target playlist.

The analysis of the stereo width of the four chosen songs[103] is as follows:

- Each song panned their most prominent elements to the centre of the stereo field. An observation that can be made using this information is that song which panned their most prominent elements to the centre of the stereo field were more likely to achieve placements on the target playlist.

[103] See Appendix F, G, H and I.

The analysis of the dynamic of the four chosen songs[104] is as follows:

- Each song began at a low dynamic intensity, which then built over time. This suggests that songs which were mixed to begin at a low dynamic intensity, then build over time were more likely to be placed in the target playlist.
- Each song reached their dynamic peaks during the final chorus. An observation can be made from this data that songs which reached their dynamic peaks at their final chorus were more likely to achieve a place on the target playlist.
- Each of the songs dropped in dynamic intensity during their final section. This suggests that songs which drop in dynamics during their final section were more likely to be chosen for placement on the target playlist.

Mastering

Mastering Information

Song Name	Integrated Loudness (LUFS)	True Peak Maximum (dB)	Loudness Range (LU)
Duvet Day	-14.6	-1.5	10.6
Sun Room	-9.8	0.1	8.8
All Ours	-9.8	0.2	14.3
It Isn't Fair	-10.9	0.1	12.6

Fig.29 - Mastering information on the four chosen songs.

The analysis of the information shown in fig.29 is as follows:

- The integrated loudness of the four songs ranged from -9.8 to -14.6 LUFS. This suggests that songs whose integrated loudness ranged from -9.8 to -14.6 LUFS were more likely to be selected for placement on the target playlist.
- The true peak maximum of three of the songs was above -1dB. An observation can be made with this information that songs whose true peak maximum was above -1dB were more likely to be placed on the target playlist. This is interesting due to the fact that Spotify compresses any audio above -1dB for their platform.
- The loudness range of the four songs ranged from 8.8 to 14.3 LU. This suggests that songs which had loudness ranges of 8.8-14.3 LU were more likely to be chosen for placement on the target playlist.

[104] See Appendix J, K, L and M.

Now that the examination of both the one hundred best performing songs and the four chosen songs has been analysed, the analysis can now move to the songwriting and production process.

The songwriting and production process.

During the analysis of the songwriting and production process, aspects of both success and failure were noted. These aspects will now be explained, beginning with the successes.

- The choice of microphone and mixing techniques of the lead vocal resulted in a sound that was similar to that of the lead vocals in the four chosen songs. This would suggest that the microphone chosen and the mixing techniques utilised on the song's lead vocal made it more likely to achieve placement on the target playlist.
- The song was written in the following structure: introduction, verse, pre-chorus, chorus, post-chorus, verse, pre-chorus, chorus, post-chorus, chorus, outro. This structure was written based on the decided guidelines for the songwriting process. This structure is similar to those of the four chosen songs. This would suggest that the chosen structure of the project's song had an increased likelihood of being chosen for placement on the target playlist.
- The unique synthesiser sound utilised in the final chorus of the song helps to make the song sound unique. Each of the four chosen songs included similar unique arrangement elements. An observation that can be made from this information is that the unique synthesiser sound in the project's song increased it's chances of achieving placement on the target playlist.

The weak points of the songwriting and production process will now be discussed.

- Each of the one hundred songs examined for the project contained percussion in their arrangements, in the form of drum kits or other percussive elements. The project's song did not contain any percussive elements due to scheduling issues during the planning process of the project. It is probable that the song was less likely to be chosen for placement on the target playlist due to this reason.
- The song written was four minutes and thirty-two seconds long. It was found in the examination of the one hundred songs that the best duration ranges were 3:00-3:09 and 3:30-3:39. It can be surmised that the lengthy duration of the song made it less likely to be chosen for placement on the target playlist.
- The mix of the song is satisfactory, but not as accurate to the four examined songs as would be preferred, due to the the broad nature of the mix analysis. An observation that can be made with

this information is that the inaccurate mixing process of the project made it less likely to achieve placement on the target playlist.

The publishing and promotion process.

With the songwriting and production process analysed, the analysis of the publishing and promotion process will now be discussed. There were several strengths and weaknesses pertaining to this process of the project. First the strengths will be analysed.

- The Spotify application for consideration for editorial playlists was filled out as similarly as possible to the application for the control song, 'Endlessly'. This meant that any information examined pertaining to the song's performance could be directly compared to the control, with the knowledge that any change was due to the songwriting and production, not the publishing and promotion.
- The song was published to Spotify six weeks prior to the set release date. This allowed for an extra two weeks of advance notice to Spotify compared to their recommended four weeks. This would increase the chances of a Spotify editor listening to the song prior to the release date, and considering it for placement on the target playlist.
- The song was published to Spotify in the form of a single. Examination of the data of the one hundred songs shows that 57% were published as singles. This suggest that by being published as a single, it's chances of achieving placement on the target playlist had increased.

The weaknesses of the publishing and promotion process will now be discussed.

- In the final section of the application for consideration for editorial playlists, the answer given was short in comparison to the word count provided. This was done to maintain similarity of application answers between the project's song and the control song, as the same answer in the control song's application was a similar length. The briefness of this answer could possibly have worsened the song's chances of being chosen for the target playlist.
- The amount of posts promoting the song on social media prior to release was four. This was done due to the fact that the control song was promoted on social media the same amount of times. This infrequency of promotional posts on social media for the song could have decreased the likelihood of the song being placed on the target playlist.
- The same publications that were contacted during the promotion of the control song were contacted when promoting the project's song. Only three of the publications contacted personally

responded. If more publications were contacted in a more diverse range of cultures and localities, the chances of the song achieving placement on the target playlist could have been larger.

This concludes the analysis of the publishing and promotion process of the project. The performance of the song on Spotify will now be analysed.

The performance of the project song versus the control song on Spotify one week after release.

Streams in the first week

Streams Per Day	Lighthouse	Endlessly
1	12	85
2	2	18
3	2	9
4	8	14
5	11	65
6	10	16
7	2	17
Total	47	224

Fig.30 - Streams each day of first week after release for ‘Lighthouse’ and ‘Endlessly’.

Both the project’s song and the control song will now be analysed based on their performance on Spotify in the first week after their release dates, and wether or not either song achieved placement on the target playlist. The project’s song, ‘Lighthouse’, gained forty-seven streams in the course of it’s first week after the release date. The control song, ‘Endlessly’, gained two hundred and twenty-four streams in the same amount of time after it’s release date. This evidence suggests that the decided guidelines for the songwriting and production of the song, which were followed during the songwriting and production process of the project, did not have a positive effect on the amount of streams a song can achieve in its first week on Spotify. Neither of the two songs achieved a placement on the target playlist, ‘A Breath of Fresh Éire’. An observation can be made that the songwriting and production guidelines created for the project did not increase the chances of a song being chosen for placement on the target playlist.

This concludes the analysis chapter. The learning gained throughout the course of the project will now be discussed.

Discussion

The project examined data analysed in the categories of songwriting, audio engineering, critical listening, production, mixing, mastering and arranging. The primary focus of the project was the songwriting and production techniques of songs placed on the 'A Breath of Fresh Éire' Spotify editorial playlist.

In select areas of analysis, it was found that the most popular set of data was expected, but the second most popular set was not expected. An example of this can be found in the examination of the container type of the one hundred songs. The clear winner in this category is the single format, which the developed guidelines took into account. However, the album format was the second highest ranking in the examination, with 25 songs being a part of an album. Four of these songs came from the same album: 'Skinty Fia'[105] by Fontaines D.C.. Spotify only allows artists to apply one song for editorial playlist consideration at a time. To apply another song for consideration, the previously applied song's release date must pass. This means that at least three of the songs from 'Skinty Fia' were not applied for consideration. This suggests that the application process is not the only way to achieve placement on editorial playlists. Other ways could include the involvement of labels representing larger artists contacting Spotify regarding placement on playlists, or Spotify discovering popular songs and placing them on editorial playlists that fit their style. Another interesting point that was discovered during the project is the broad nature of the keys used by the top one hundred songs. The most used key in the dataset was D major with only 12% of songs using it. The next most popular key was A minor with 9% of songs using is. This would suggest that the key and wether that key is major or minor was not a particularly important aspect of the songs chosen for placement on 'A Breath of Fresh Éire'. One final interesting point found in the was the variety of genres of songs chosen for placement on the playlist. The most popular genres of the dataset were indie and pop, but other genres like hip-hop and folk were featured, albeit in lesser numbers. This suggests that genre also was not an important factor in a song achieving placement on the playlist.

Throughout the course of the project, new knowledge was gained that was not previously known to the project. One point of knowledge learned was that 64% of songs examined featured lyrics within the first nineteen seconds of playback. This shows clearly that songs with lyrics within this time

[105] Fontaines D.C.. *Skinty Fia*. Partisan Records. 2022.

range were more likely to be chosen for placement on the target playlist. This feature if easily utilised in most conventional composition, could increase a song's chance of success on Spotify. Another piece of knowledge gained from the analysis of the four songs chosen for further study relates to the song title. Each of the four songs' lyrics featured the words or phrase used in the song's title. This again is a useful tool for songwriters that can quickly and easily bolster chances for a song's success on Spotify. A final piece of knowledge gained through is project is that 94% of artists featured in the dataset had more than one thousand monthly listeners. This could suggest that artist which are already experiencing success on Spotify will be rewarded placements on editorial playlists more often than smaller artists.

During this project, several skills were gained or improved upon in the pursuit of meaningful information a high quality final song. One of these skills was developed during the analysis of the four songs chosen for further examination was the analysis of the chorus vocal melodies. Each of these melodies were written out in the notation software MuseScore 4. The frequent use of this notation software throughout this project has contributed to the proficiency of this skill. Another skill that was learned in the process of analysing the various aspects of all of the songs examined was recording the findings into specific spreadsheets to aid further analysis. Several of these spreadsheets were developed into charts and tables for better understanding of the topics being discussed. This new skill has aided in supporting points made throughout the entire course of the project. One more skill that was developed during the project came specifically when analysing the key centres of the songs. Each of the one hundred songs of the dataset were examined in this area by using relative pitch skills and critical listening to discern the notes and scales in use in each song.

The aim of the project was to develop a set of guidelines for songwriting and production that would increase the likelihood of a song achieving placement on Spotify editorial playlists. A song would then be written and produced following these guidelines as closely as possible. The song would then be chosen for placement on a Spotify editorial playlist. Unfortunately, the song made did not achieve placement on an editorial playlist. This area requires more detailed research and experimentation in order to reach the project's aim.

Conclusion

The goal of this project was to examine the traits of popular songs on a Spotify editorial playlist. The songs in the selected playlist were analysed in various ways relevant to their songwriting and production attributes. A set of guidelines was created based on this analysis. Hypothetically, if followed, these guidelines would help a song to achieve a placement on the previously mentioned playlist. A song was written and produced using these guidelines. This song was published to Spotify, promoted and applied for consideration for Spotify editorial playlists. Unfortunately, the song was not successful in achieving placement on the playlist.

If the project had more time, more in-depth analysis would be performed on the writing, production and mixing techniques of all one hundred songs examined, as more data on this subject would help to create more accurate guidelines to follow. More time could be spent in the pre-production and production stage considering every creative decision with reference to the more detailed guidelines. Looking back on the project, despite it's failure to achieve placement on the target playlist, it was successful in extracting valuable information through analysis and experimentation. This information could provide valuable insights to small artists hoping to achieve placements on editorial playlists.

The future development of this project could involve analysing similar groups of songs from other Spotify editorial playlists of different popularity, sizes and genres. This would give a wider representation of how Spotify selects songs for multiple playlists, not just one. Research could also be expanded into optimal promotional strategies for releases on Spotify utilising social media and publications to drive traffic to a song to increase its chances of placement on an editorial playlist.

In a broader context this project has brought up questions of whether artists should make music with a set of guidelines in mind, or pursue placement on editorial playlists with such intensity. These playlists shower success on the artists they feature, but should artists strive for this and potentially risk stifling their own creativity in the process? The results of this project suggest that the use of guidelines of this project's nature is not a definitive way to achieve placement on an editorial playlist. This also suggest that the creativity of an artist and the quality of their work is still an important factor in music made today.

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Appendix

A. Spreadsheet of analysis of top one hundred performing songs on ‘A Breath of Fresh Éire’

Fresh Éire Master Table

Song Name	Artist Name	BPM	Time Sig	Duration	Key Centre	Genre	Song Container
On My Ones	Aby Coulibaly	120	4/4	03:24	F#m	R&B	Single
Extrovert	Monjola	126	4/4	03:07	C#m	R&B	Single
Never Gonna Stop	49th and Main	120	4/4	04:00	C#m	Dance	EP
Every Bottle (Is My Boyfriend)	CMAT	127	4/4	04:48	G	Indie	Album
Another Life	Tomike	95	4/4	01:53	Am	R&B	Single
Love Like This	Erica-Cody	127	4/4	02:48	G#m	R&B	Single
welcome to the sidelines	amy michelle	120	4/4	02:58	C	Bedroom Pop	EP
last july	SOAK	125	4/4	03:46	D	Indie	Album
You’re (Still) in Love	Tim Chadwick	100	4/4	04:21	G	Indie	Single
Body	Soulé	105	4/4	02:58	Am	R&B	Single
Loving Girl	EFÉ	90	4/4	05:00	B	Bedroom Pop	EP
Something About Stars	Will Troy	105	4/4	04:06	C#	Ballad	Single
Banshee	NewDad	102	4/4	04:05	D	Indie	Single
Roman Holiday	Fontaines D.C.	119	4/4	04:29	Em	Rock	Album
Archie	Sorcha Richardson	69	4/4	04:11	Am	Indie	Album
Sports & Tattoos	KhakiKid, FRANK ZING	116	4/4	02:14	D#m	Hip Hop	EP
Kerosene	Biig Piig	119	4/4	02:30	Cm	Dance	Single
Heart Attacks	Kean Kavanagh	75	4/4	04:16	D	Indie	Single
Postman	Lucy Blue	54	6/8	03:14	F#	Bedroom Pop	EP
Rocks (Single Edit)	MuRli, Jafaris	145	4/4	03:31	Am	Hip Hop	Single
Already Famous	Lenii	104	4/4	02:35	Bm	Pop	Single
These Are The Days	Inhaler	140	4/4	03:42	E	Indie	Single
Ina Crueler	Bricknasty	106	4/4	03:34	Cm	R&B	Single
54321	April	173	4/4	02:20	F#m	Dance	EP
fishing	Uly	80	4/4	03:25	E	Bedroom Pop	Single
Twin	Anna Mieke	66	6/8	05:18	C#/C#m	Folk	Single
Simple Life	Kynsy	122	4/4	04:11	C#m	Pop	EP
Hurricane	James Vincent McMorrow	68	4/4	04:27	G	Indie	Album
Sunset	Daithí, Ailbhe Reddy	120	4/4	03:56	C	Dance	Album
The Lucky One	Lilla Vargen	67	4/4	03:37	C#	Ballad	Single
Process	SELLO	145	4/4	03:05	D#m	Hip Hop	Album
All Ours	Talos	75	6/8	03:37	Fm	Indie	Album
Nobody Can Have Me	jena keating	138	4/4	02:02	Em	Pop	Single
By Now	Fia Moon	65	4/4	03:16	A#	Ballad	Single
Here I Go	Winnie Ama	135	4/4	03:37	Em	R&B	Single
Heartbeats	STRABE	119	4/4	03:34	F#m	Dance	EP
Duvet Day	katie phelan	68	6/8	02:58	C	Bedroom Pop	Single
Movin’ Different	Mango X Mathman, Plantain Papi	110	4/4	03:51	Cm	Dance	Album
Satellite	Carrie Baxter, Jafaris	89	4/4	02:57	F	R&B	Single
nobody but me - postcards version	Maria Kelly, Sammy Copley	70	4/4	03:16	D	Ballad	Single
Sun Room	Far Caspian	82	4/4	03:56	C	Indie	Album
Be By Your Side	Pillow Queens	125	4/4	04:54	D	Indie	Album
Come Ouu (feat. Jrilla)	SELLO, JRILLA	145	4/4	03:18	Fm	Hip Hop	Album
Blue	Daire Patel	88	4/4	02:46	A	Indie	Single
sugar	Rosie Carney	79	4/4	03:45	C#m	Indie	Album
Bumblebees and Blue Skies	Lucy McWilliams	75	4/4	05:17	C	Ballad	Single
I Wish	1000 Beasts, Carrie	50	6/8	02:53	D#	R&B	Album
Not a Vibe	Chubby Cat	112	4/4	02:38	F#	Pop	Single
Light Me Up	LYRA	112	4/4	03:33	G	Pop	Single

Song Name	Artist Name	BPM	Time Sig	Duration	Key Centre	Genre	Song Container
My Head	Valerie Rose	115	4/4	02:25	Am	Pop	Single
Never Mind	Malaki	154	4/4	03:36	C	Hip Hop	Single
Sirens	Jafaris	53	6/8	03:13	D#m/D	R&B	Single
I Might Bore You.	milk.	120	4/4	03:32	E	Indie	Single
swear jar	SOAK	102	4/4	04:36	D	Indie	Album
Beating Heart	True Tides	122	4/4	03:06	F#	Pop	Single
flowers-fire	Kingfishr	97	4/4	03:15	C	Ballad	Single
the way i make things feel okay	amy michelle	97	4/4	04:30	A	Bedroom Pop	Single
Human Condition	49th and Main	137	4/4	03:07	A#	Dance	EP
Jackie Down The Line	Fontaines D.C.	135	4/4	04:01	Bm	Rock	Album
Hailee	Lydia Ford	98	4/4	02:13	G	Pop	Single
KIWI	EFÉ	109	4/4	03:39	D	Bedroom Pop	EP
Insecure	XO LU	124	4/4	02:20	F#m	Bedroom Pop	Single
Sun God, I'll Be Your Woman	Æ MAK	110	4/4	03:08	C#m	Dance	Single
Live Without You	Wild Youth	98	4/4	02:55	A#	Pop	Single
Pressure	April	70	4/4	03:14	A	Pop	Single
Move Me	Abbacaxi	116	4/4	04:31	C#m	Dance	EP
Woodstock	KhakiKid	75	4/4	02:15	C#m	Hip Hop	EP
ILY2	NewDad	103	4/4	03:45	D	Indie	Single
Elephant	Flynn	84	4/4	02:31	D	Pop	Single
Pushing Up Daisies	The Academic	133	4/4	03:23	G#m	Rock	Single
Cold Feet	ROE	119	4/4	04:14	Am	Ballad	Album
Easy Does It	Yenkee	109	4/4	03:59	A	Indie	Album
Bad Rain	Nixer, shiv	116	4/4	04:40	Am	Dance	EP
Spotlight Television	Sorcha Richardson	120	4/4	04:09	A	Indie	Album
Love Will Get You There	Inhaler	96	4/4	04:10	Gm	Indie	Single
Familial	Daithí	120	4/4	04:37	A#m	Dance	Single
Margarita	YAWA	124	4/4	05:57	A#	Pop	Single
Big Fat Liar	Monjola	126	4/4	02:51	Gm	R&B	Single
Sucker	SOPHIE DOYLE RYDER	140	4/4	03:04	D	Pop	EP
you got me (YGM)	Lwny	145	4/4	4:31	C	Dance	Single
For Good	katie phelan	60	6/8	03:18	B	Bedroom Pop	Single
Skinty Fia	Fontaines D.C.	109	4/4	03:56	Dm	Rock	Album
Peoples	Zapho	91	4/4	03:24	Dm	R&B	Single
Come Down and Waste With Me	Far Caspian	133	4/4	04:08	E	Indie	Album
Hearts & Minds	Pillow Queens	124	4/4	04:02	C	Indie	Album
until my heart stops beating	modernlove.	170	4/4	03:25	G	Pop	EP
Sick of It.	wtr	116	4/4	03:31	Gm	R&B	Single
Fallin	Jnr	90	4/40	02:31	E	Pop	Single
Reality Dreaming	STRABE	149	4/4	05:29	F	Indie	EP
Babybrown	KhakiKid	101	4/4	02:19	F#	Hip Hop	EP
purgatory	SOAK	114	4/4	04:08	D	Indie	Album
The Wrong Side of Town	N.O.A.H	158	4/4	03:20	D	Pop	Single
it isn't fair	piglet	82	4/4	03:03	E	Bedroom Pop	Single
Break My Own Heart	Lucy McWilliams	142	4/4	03:12	Dm	Indie	Single
Shark Eyes	Sorcha Richardson	118	4/4	04:30	Am	Indie	Album
Knife	Lenii	82	4/4	03:14	A#m	Pop	Single
Streetlights	49th and Main	140	4/4	03:19	A	Dance	Single
In My Head	Lydia Ford	83	4/4	03:00	E	Pop	Single
Endless	Abbacaxi	117	4/4	03:11	Am	Dance	EP
I Love You	Fontaines D.C.	114	4/4	05:06	Em	Rock	Album

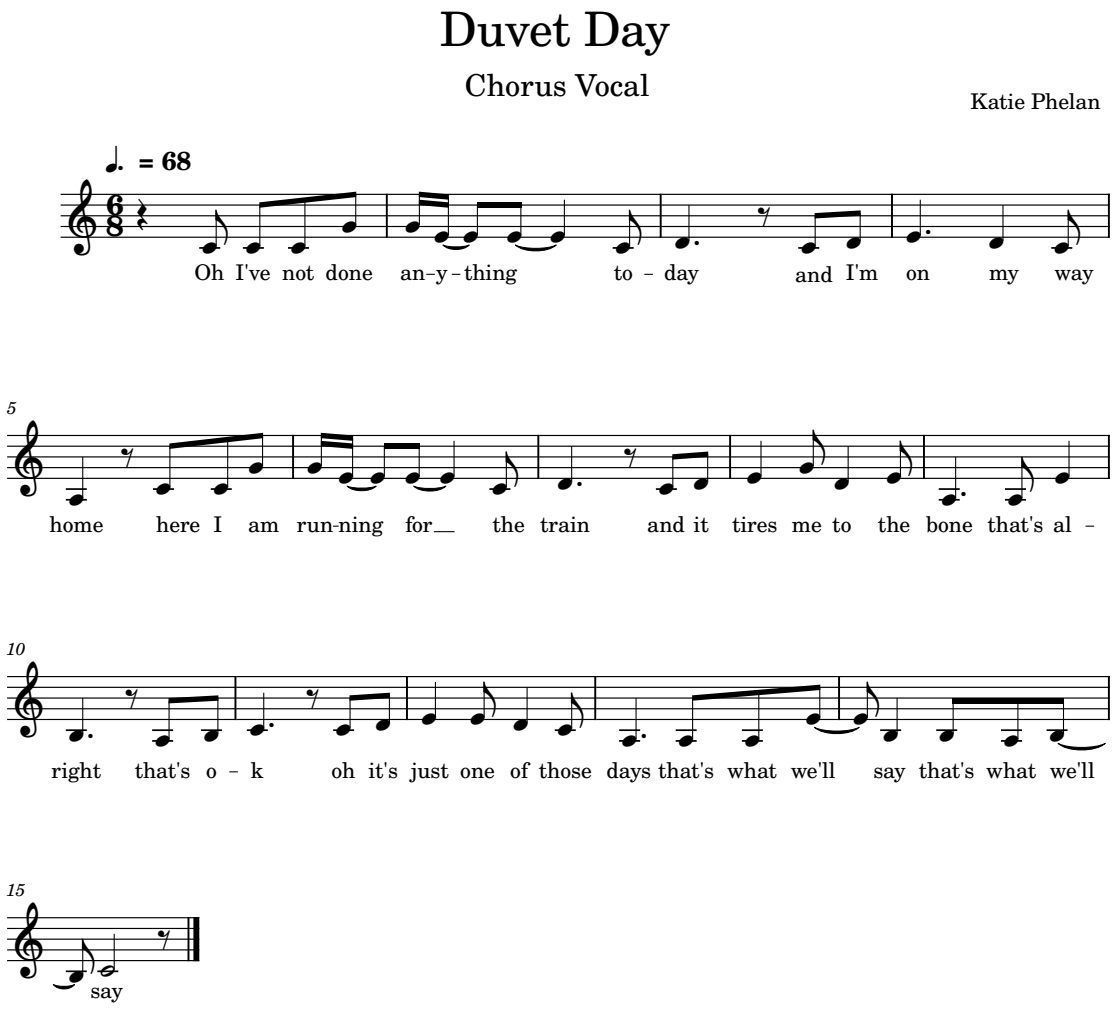
Song Name	Title Word Count	Time Until 1st lyric	Time Until Chorus	Song Stream Count	Artist Monthly Listeners
On My Ones	3	00:08	00:40	154464	73173
Extrovert	1	00:00	00:00	733072	122490
Never Gonna Stop	3	00:00	00:28	3196268	1206557
Every Bottle (Is My Boyfriend)	5	00:15	01:00	661177	174480
Another Life	2	00:00	00:00	248529	17765
Love Like This	3	00:08	00:38	51738	4543
welcome to the sidelines	4	00:00	00:00	276132	57036
last july	2	00:31	01:10	305350	228210
You're (Still) in Love	4	00:00	00:39	63464	31733
Body	1	00:00	00:36	443592	18926
Loving Girl	2	00:02	00:43	57383	59538
Something About Stars	3	00:09	01:04	87958	22596
Banshee	1	00:12	01:00	466183	159307
Roman Holiday	2	00:39	01:11	9634912	1049214
Archie	1	00:29	00:57	266308	189642
Sports & Tattoos	3	00:16	00:49	116067	141163
Kerosene	1	00:08	00:24	3364796	2775013
Heart Attacks	2	00:29	01:20	85777	45635
Postman	1	00:08	01:02	112421	27623
Rocks (Single Edit)	3	00:14	00:14	14368	16897
Already Famous	2	00:13	00:50	198205	333626
These Are The Days	4	00:23	00:51	7620523	1353969
Ina Crueler	2	00:15	00:52	66054	10721
54321	1	00:00	00:33	567105	63743
fishing	1	00:11	00:36	43789	81146
Twin	1	00:39	01:26	1029848	258424
Simple Life	2	00:35	01:06	29781	24549
Hurricane	1	00:28	01:17	4108627	1972525
Sunset	1	00:23	01:58	88414	84625
The Lucky One	3	00:16	00:44	152550	484443
Process	1	00:26	01:09	153940	32093
All Ours	2	00:19	01:08	254550	196204
Nobody Can Have Me	4	00:07	00:35	15933	1602
By Now	2	00:14	00:59	211494	11840
Here I Go	3	00:13	00:42	201894	6421
Heartbeats	1	00:16	00:48	20560	115736
Duvet Day	2	00:15	00:29	119322	4317
Movin' Different	2	00:18	00:52	53336	13544
Satellite	1	00:02	00:47	21501	608103
nobody but me - postcards version	5	00:00	01:09	183228	66632
Sun Room	2	00:24	01:22	442583	521220
Be By Your Side	4	00:07	01:07	658340	51939
Come Ouu (feat. Jrilla)	4	00:13	00:26	236306	32093
Blue	1	00:11	00:11	19143	2568
sugar	1	00:12	01:01	179919	616063
Bumblebees and Blue Skies	4	00:24	00:49	97706	140833
I Wish	2	00:19	00:38	19944	94150
Not a Vibe	3	00:00	00:51	18647	1617
Light Me Up	3	00:02	00:36	199189	236232

Song Name	Title Word Count	Time Until 1st lyric	Time Until Chorus	Song Stream Count	Artist Monthly Listeners
My Head	2	00:00	00:34	129561	13023
Never Mind	2	00:25	01:02	104055	223458
Sirens	1	00:04	00:41	39022	243942
I Might Bore You.	4	00:16	00:47	373786	206346
swear jar	2	00:10	00:51	265934	228210
Beating Heart	2	00:10	00:41	119544	9202
flowers-fire	2	00:16	00:54	280111	24256
the way i make things feel okay	7	00:21	01:40	255188	57036
Human Condition	2	00:14	00:28	1807282	1206557
Jackie Down The Line	4	00:14	00:43	16506163	1049214
Hailee	1	00:10	00:39	152988	9899
KIWI	1	00:18	00:52	387257	59538
Insecure	1	00:00	00:31	33324	14066
Sun God, I'll Be Your Woman	6	00:21	00:57	20024	42353
Live Without You	3	00:00	00:41	448475	200140
Pressure	1	00:15	00:41	130716	63743
Move Me	2	0:54	01:10	7045	3226
Woodstock	1	00:06	00:06	31720	141163
ILY2	1	00:15	00:38	253906	159307
Elephant	1	00:00	00:34	531940	966546
Pushing Up Daisies	3	00:16	00:44	302145	836178
Cold Feet	2	00:00	00:51	17213	3478
Easy Does It	3	00:17	01:00	21377	76473
Bad Rain	2	00:32	01:53	8021	2925
Spotlight Television	2	00:17	00:47	275371	189642
Love Will Get You There	5	00:13	01:00	5258293	1353969
Familial	1	No Lyrics	01:28	241520	84625
Margarita	1	01:01	01:49	7013	365
Big Fat Liar	3	00:15	01:01	120250	122490
Sucker	1	00:01	00:29	93854	11900
you got me (YGM)	4	No Lyrics	00:27	28603	7354
For Good	2	00:17	00:53	207966	4317
Skinty Fia	2	00:56	03:00	4134815	1049214
Peoples	1	00:15	00:37	11044	1391
Come Down and Waste With Me	6	0:36	01:34	395384	521220
Hearts & Minds	3	00:01	00:31	339435	51939
until my heart stops beating	5	00:34	00:56	294236	136197
Sick of It.	3	00:16	00:53	14170	16374
Fallin	1	00:00	00:21	18117	500
Reality Dreaming	2	00:26	01:17	25341	115736
Babybrown	1	00:04	00:43	31342	141163
purgatory	1	00:04	00:37	215058	228210
The Wrong Side of Town	5	00:13	00:38	11996	675
it isn't fair	3	00:05	01:18	15072	7062
Break My Own Heart	4	00:00	01:08	37965	140833
Shark Eyes	2	00:17	00:50	320395	189642
Knife	1	00:10	00:45	227292	333626
Streetlights	1	00:27	00:41	2504236	1206557
In My Head	3	00:12	00:46	78718	9899
Endless	1	00:36	00:54	12615	326
I Love You	3	00:26	00:26	12275722	1049214

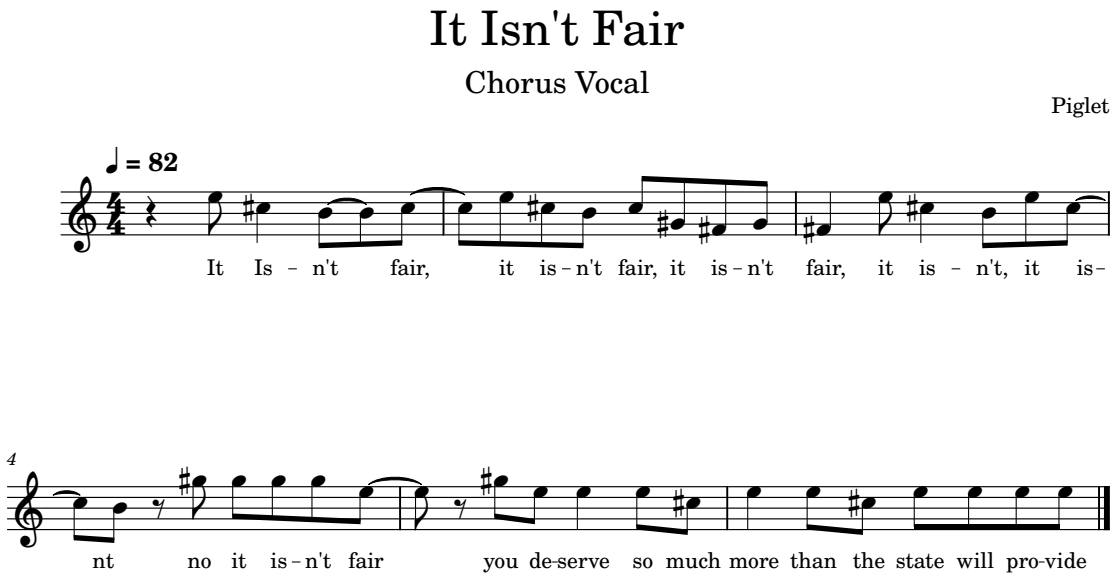
Song Name	Instagram Followers	TikTok Followers	Twitter Followers
On My Ones	14100	19500	990
Extrovert	9255	3883	1074
Never Gonna Stop	6754	2268	380
Every Bottle (Is My Boyfriend)	36200	5477	17900
Another Life	2488	1039	2463
Love Like This	39000	2422	8112
welcome to the sidelines	4082	558	No Twitter Account
last july	27200	426	18900
You're (Still) in Love	5076	1805	1149
Body	9375	74800	5531
Loving Girl	7300	9980	No Twitter Account
Something About Stars	1608	239	No Twitter Account
Banshee	17900	5332	2953
Roman Holiday	239000	16800	68300
Archie	13200	543	3890
Sports & Tattoos	8482	5947	157
Kerosene	85800	3424	6413
Heart Attacks	11000	No TikTok Account	1503
Postman	15600	50600	1362
Rocks (Single Edit)	4388	162	No Twitter Account
Already Famous	20400	198300	781
These Are The Days	251000	100900	51500
Ina Crueler	5343	221	No Twitter Account
54321	12000	20900	2840
fishing	2950	340	434
Twin	7087	43	
Simple Life	5577	397	1384
Hurricane	49100	57800	45500
Sunset	10900	No TikTok Account	7557
The Lucky One	10000	167	1005
Process	14700	4708	1272
All Ours	17800	35	5894
Nobody Can Have Me	2300	74	No Twitter Account
By Now	5763	1212	2132
Here I Go	10100	411	471
Heartbeats	773	53	No Twitter Account
Duvet Day	1766	295	102
Movin' Different	5793	No TikTok Account	1456
Satellite	3303	420	408
nobody but me - postcards version	4022	2567	1883
Sun Room	35200	2113	3189
Be By Your Side	21800	3491	12400
Come Ouu (feat. Jrilla)	14700	4708	1272
Blue	1190	80	445
sugar	10600	321	2731
Bumblebees and Blue Skies	7339	483	895
I Wish	2740	243	469
Not a Vibe	1395	136	107
Light Me Up	48400	4115	5649

Song Name	Instagram Followers	TikTok Followers	Twitter Followers
My Head	1232	3816	No Twitter Account
Never Mind	9909	82	557
Sirens	12700	105	No Twitter Account
I Might Bore You.	31300	1371	No Twitter Account
swear jar	27200	426	18900
Beating Heart	6336	1933	1597
flowers-fire	5940	575	270
the way i make things feel okay	4082	558	No Twitter Account
Human Condition	6754	2268	380
Jackie Down The Line	239000	16800	68300
Hailee	28900	1003	611
KIWI	7300	9980	No Twitter Account
Insecure	1809	2	No Twitter Account
Sun God, I'll Be Your Woman	4041	94	1864
Live Without You	29900	2439	8617
Pressure	12000	20900	2840
Move Me	2265	24	89
Woodstock	8482	5947	157
ILY2	17900	5332	2953
Elephant	12700	23000	21900
Pushing Up Daisies	62800	24000	24300
Cold Feet	7496	351	2883
Easy Does It	3823	131	953
Bad Rain	2309	50	352
Spotlight Television	13200	543	3890
Love Will Get You There	251000	100900	51500
Familial	10900	No TikTok Account	7557
Margarita	842	111	No Twitter Account
Big Fat Liar	9255	3883	1074
Sucker	6835	5642	No Twitter Account
you got me (YGM)	332	7	No Twitter Account
For Good	1766	295	102
Skinty Fia	239000	16800	68300
Peoples	1699	101	449
Come Down and Waste With Me	35200	2113	3189
Hearts & Minds	21800	3491	12400
until my heart stops beating	15300	1052	1065
Sick of It.	506	No TikTok Account	No Twitter Account
Fallin	1643	203	No Twitter Account
Reality Dreaming	773	53	No Twitter Account
Babybrown	8482	5947	157
purgatory	27200	426	18900
The Wrong Side of Town	5415	15800	517
it isn't fair	1899	No TikTok Account	No Twitter Account
Break My Own Heart	7339	483	895
Shark Eyes	13200	543	3890
Knife	20400	198300	781
Streetlights	6754	2268	380
In My Head	2191	1003	611
Endless	2265	24	89
I Love You	239000	16800	68300

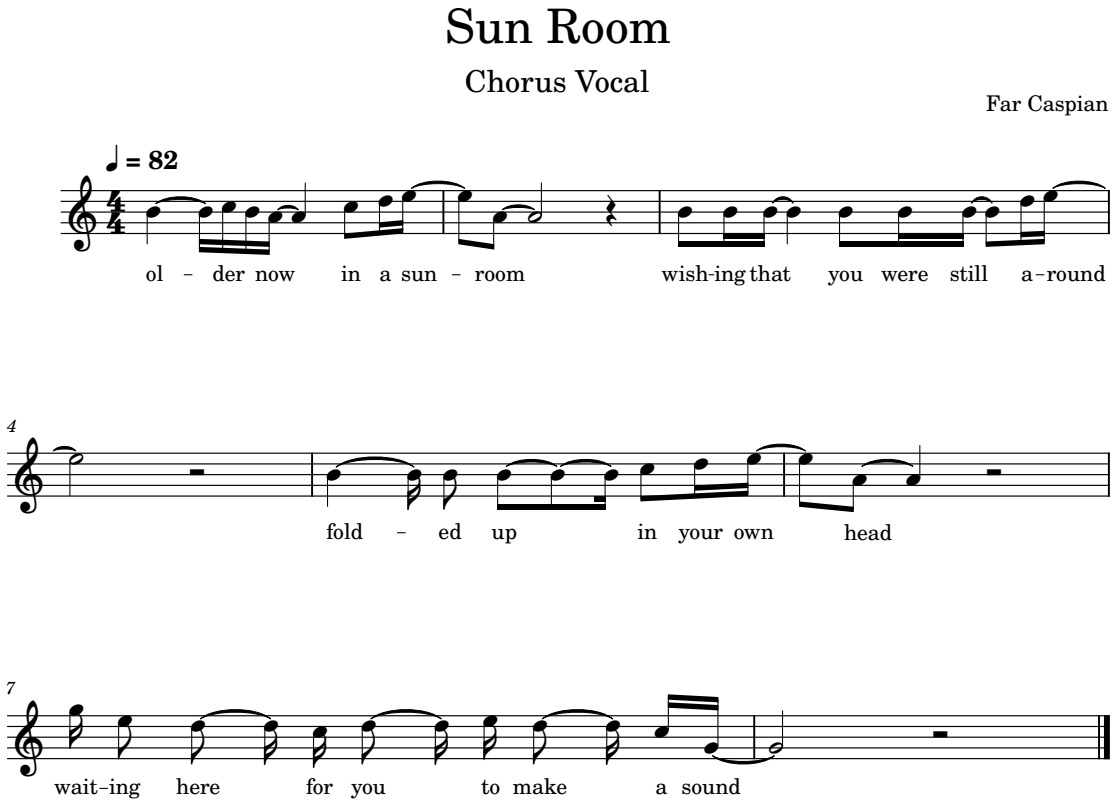
B. ‘Duvet Day’ chorus vocal melody.



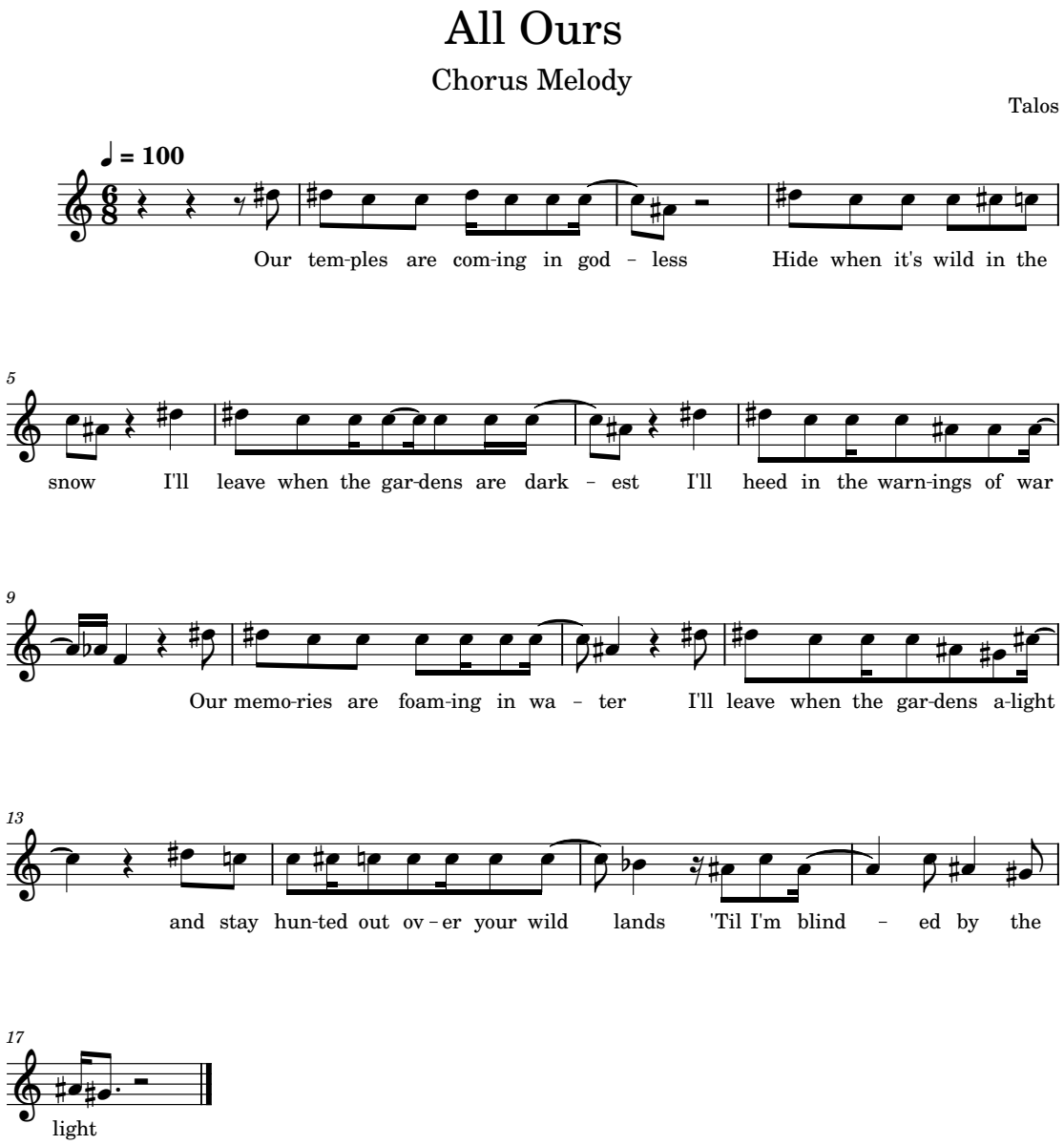
C. ‘It Isn’t Fair’ chorus vocal melody.



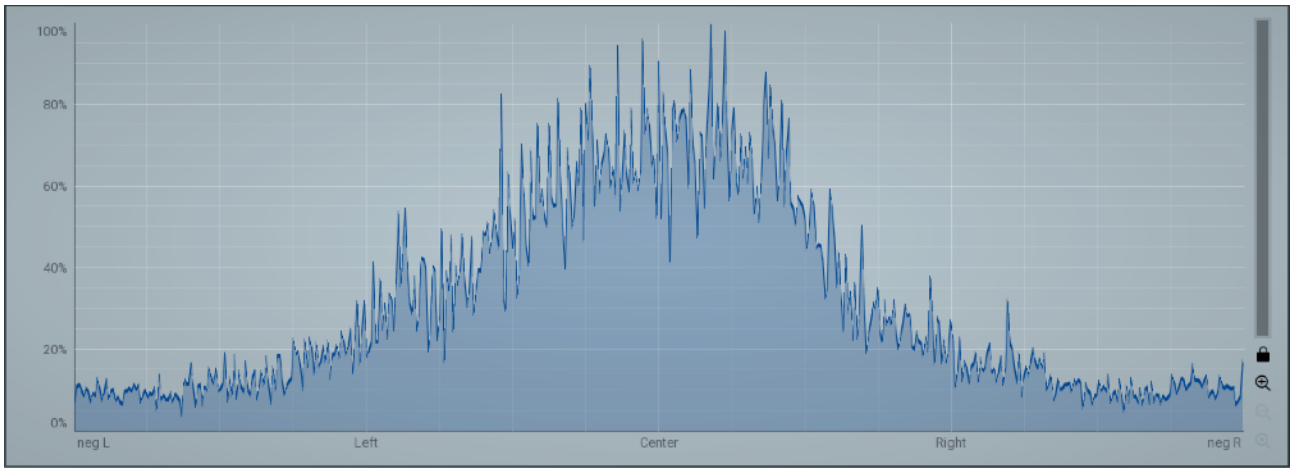
D. ‘Sun Room’ chorus vocal melody.



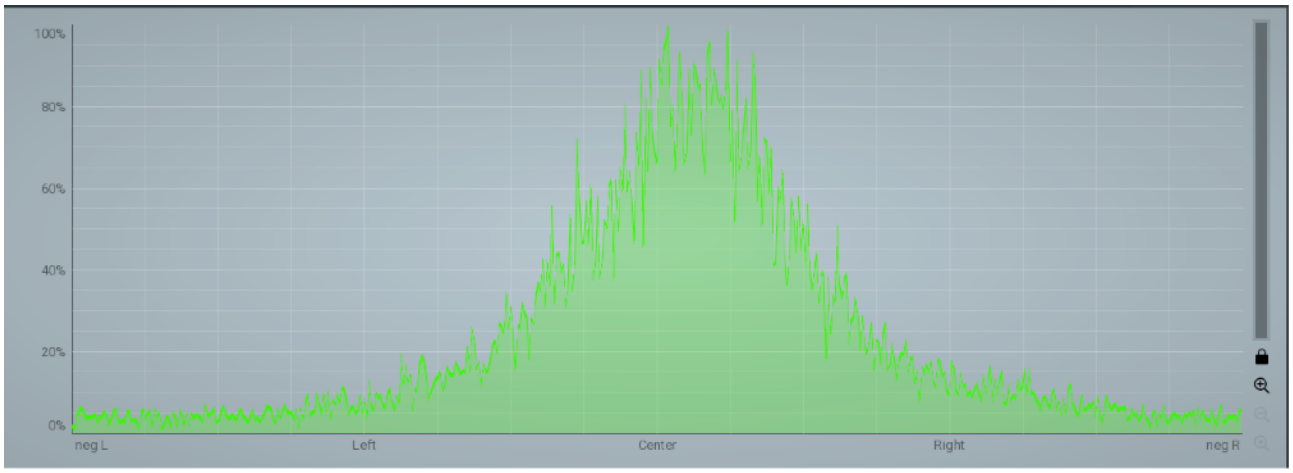
E. ‘All Ours’ chorus vocal melody.



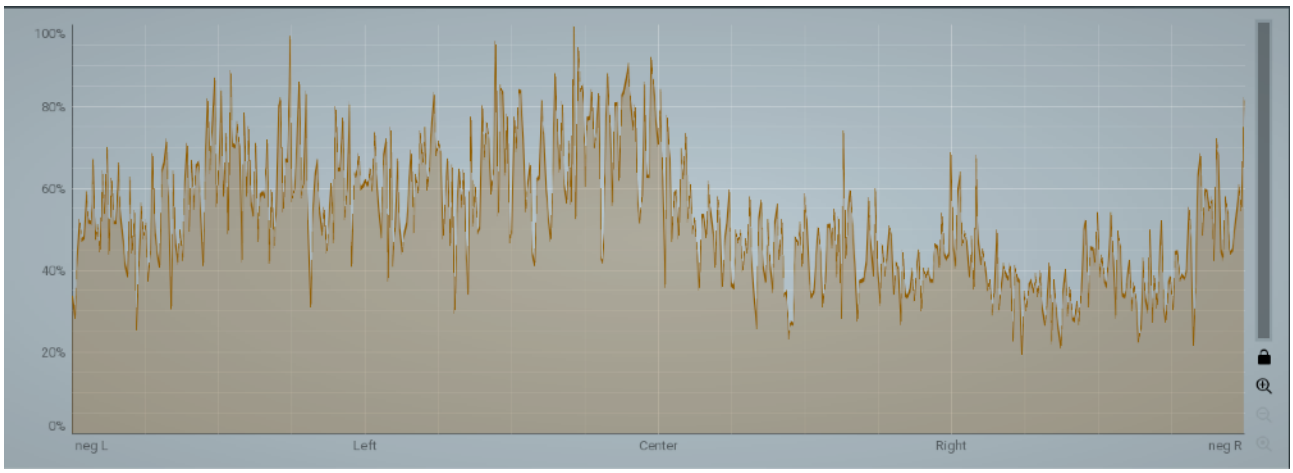
F. ‘Duvet Day’ stereo width analysis.



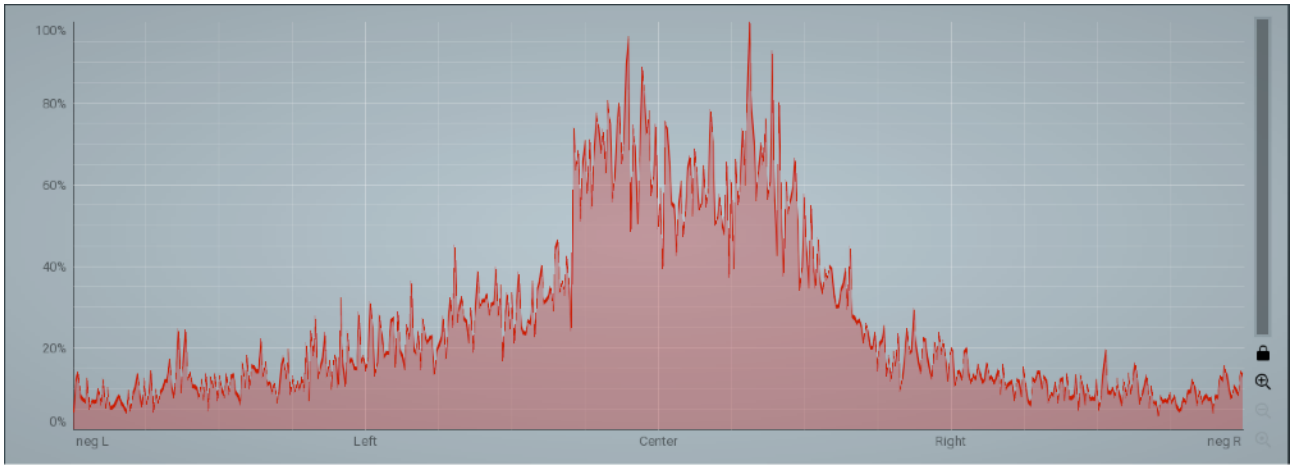
G. ‘It Isn’t Fair’ stereo width analysis.



H. ‘All Ours’ stereo width analysis.



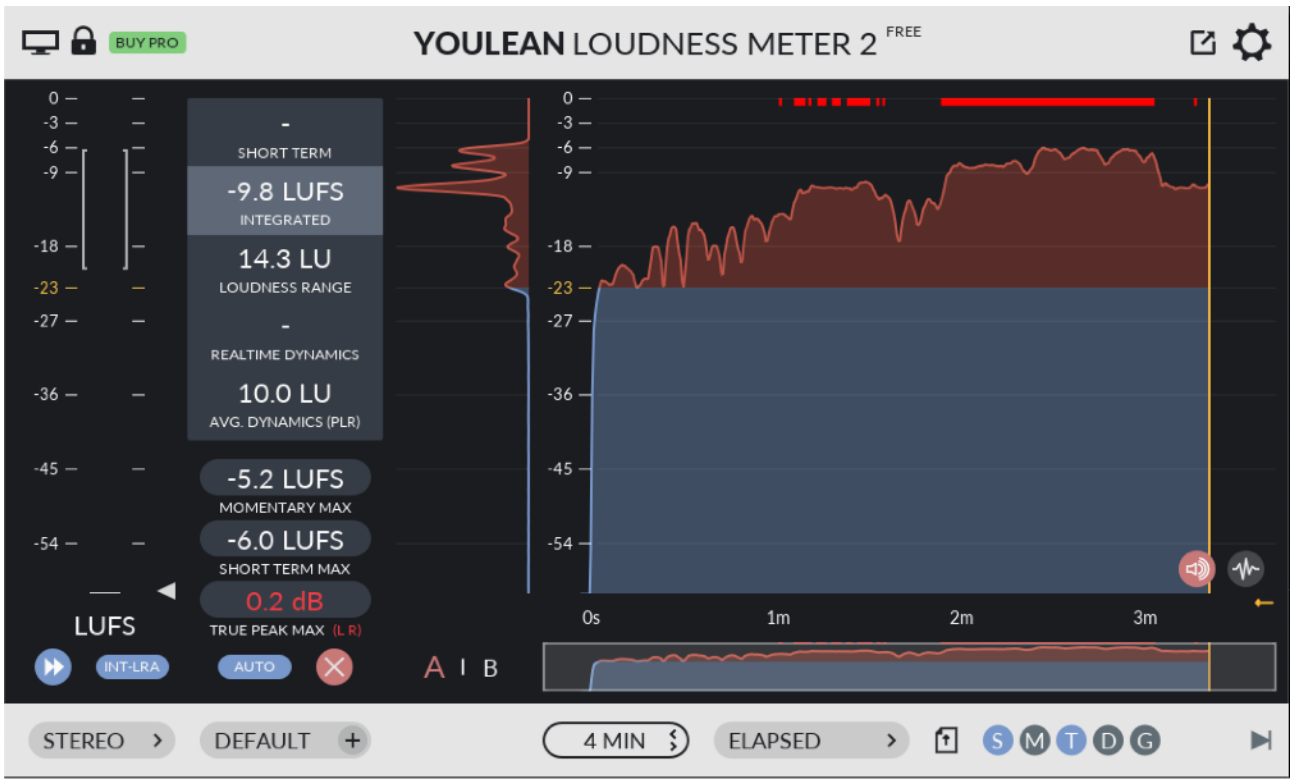
I. ‘Sun Room’ stereo width analysis.



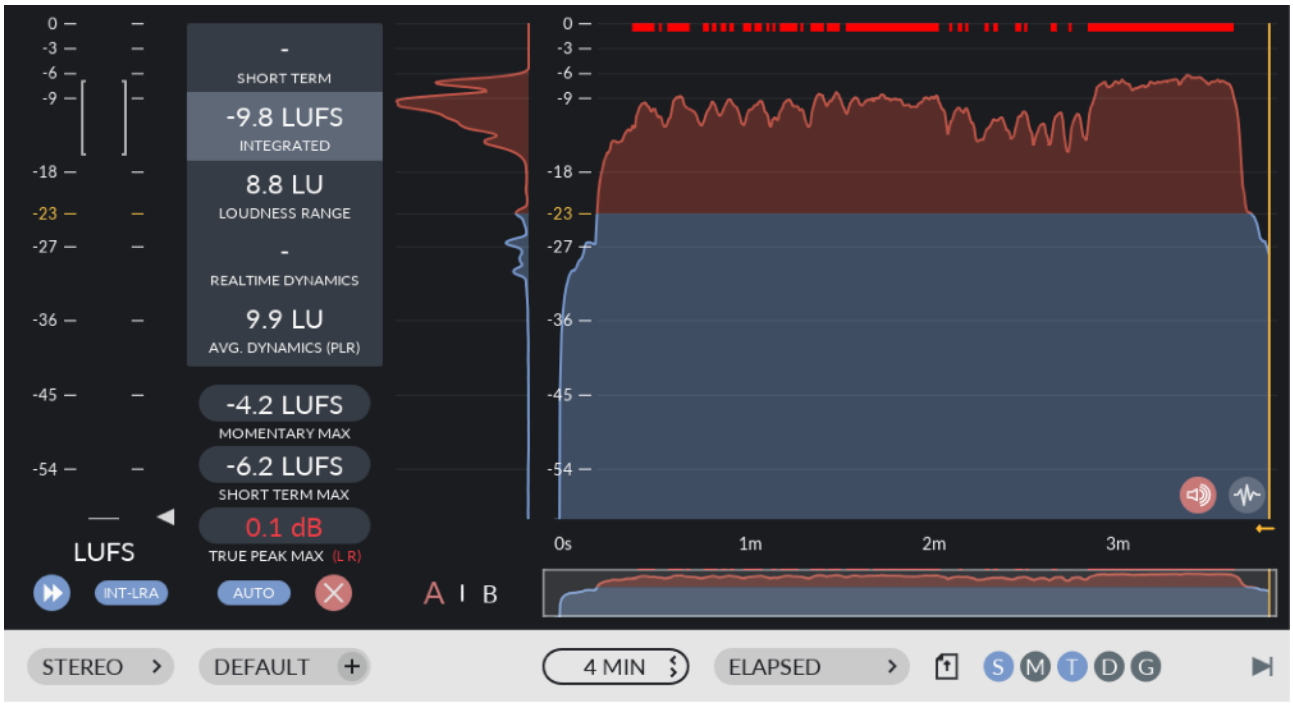
J. ‘Duvet Day’ dynamics analysis.

K. ‘It Isn’t Fair’ dynamics analysis.

L. ‘All Ours’ dynamics analysis.



M. ‘Sun Room’ dynamics analysis.



N. ‘Lighthouse’ lyrics.

I heard you like movies
I heard you like magazines
I heard you love autumn leaves
I heard that the wise man
Gave you ten weeks to breathe
I heard that you lied to me

I fall down
Into the abyss of nothing
The arrival of the imminent
Is not a time for tears
I fall down, down, down
Wishing you were here

If anybody's out there
Shining down their light
If anybody's listening

I need you here tonight
Call me in the morning
And tell me I'm alright

Wish I was a lighthouse
That someone had put out
Wish I was headed south
Wish all of my dreaming
Had room for you even now
Now

I fall down
I hit my head, crashing
Tumbling in terror
Hoping for an axe
To chop out all my roots
That make me who I am
Some things are worth forgetting
When all you do is plan

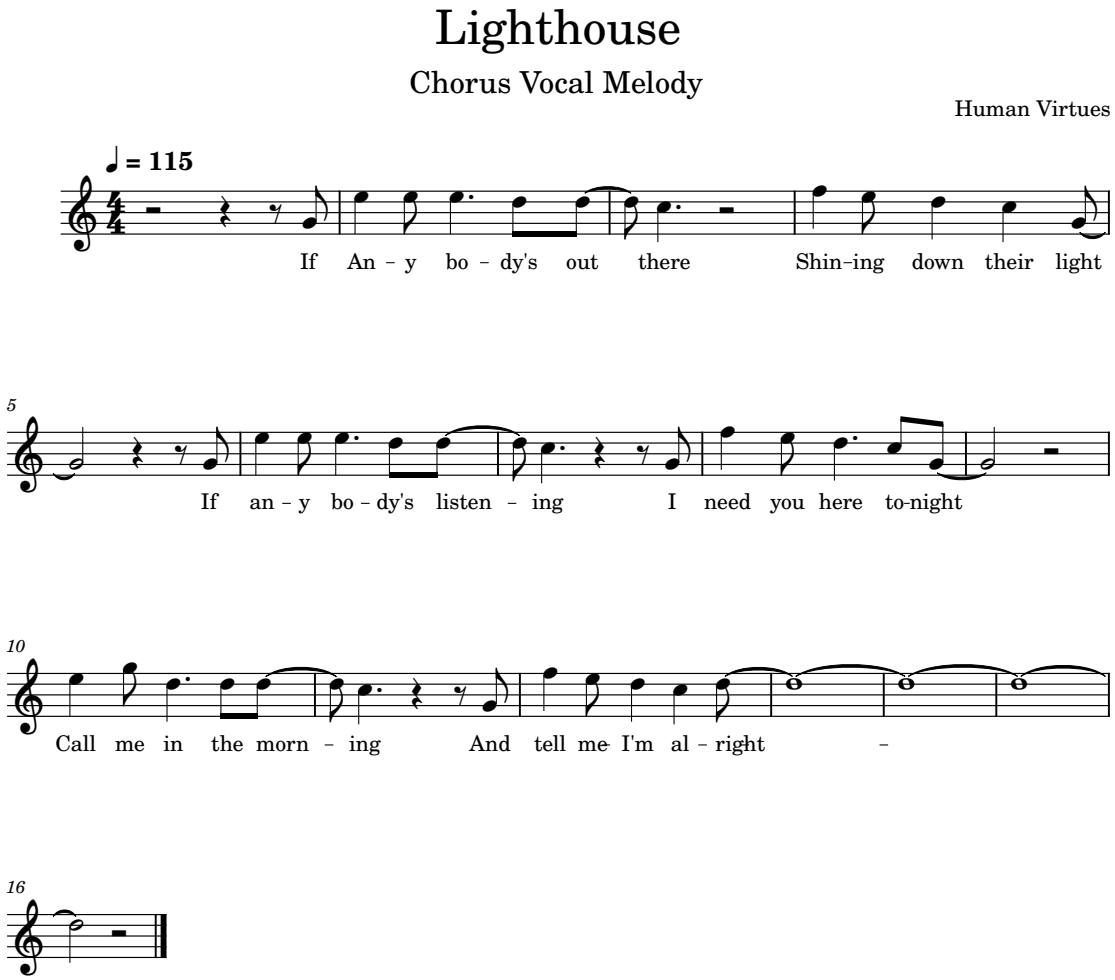
If anybody's out there
Shining down their light
If anybody's listening
I need you here tonight
Call me in the morning
And tell me I'm alright

If anybody's listening
I need you here tonight
If anybody's out there
Won't you shine on down your light

Won't you call me in the morning

And tell me I'm alright

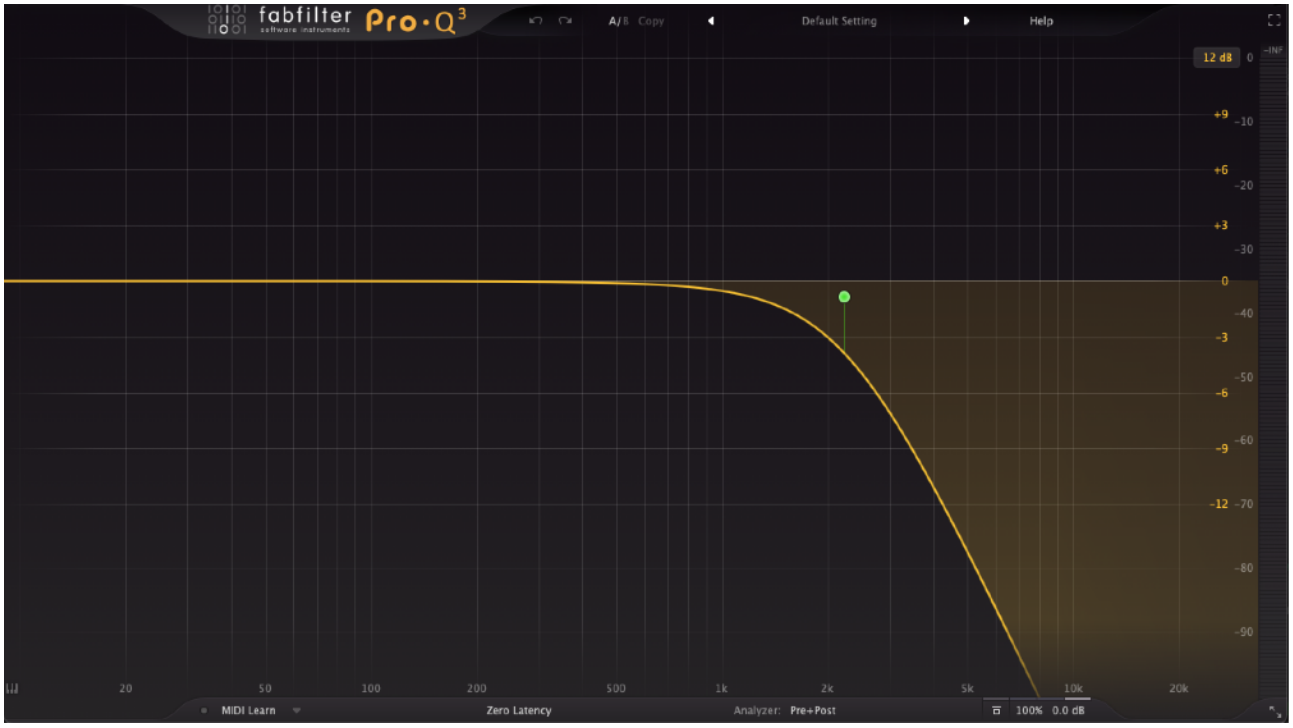
O. ‘Lighthouse’ chorus vocal melody.



P. Acoustic guitar filtering.

Q. Backing vocals filtering.

R. Bass filtering

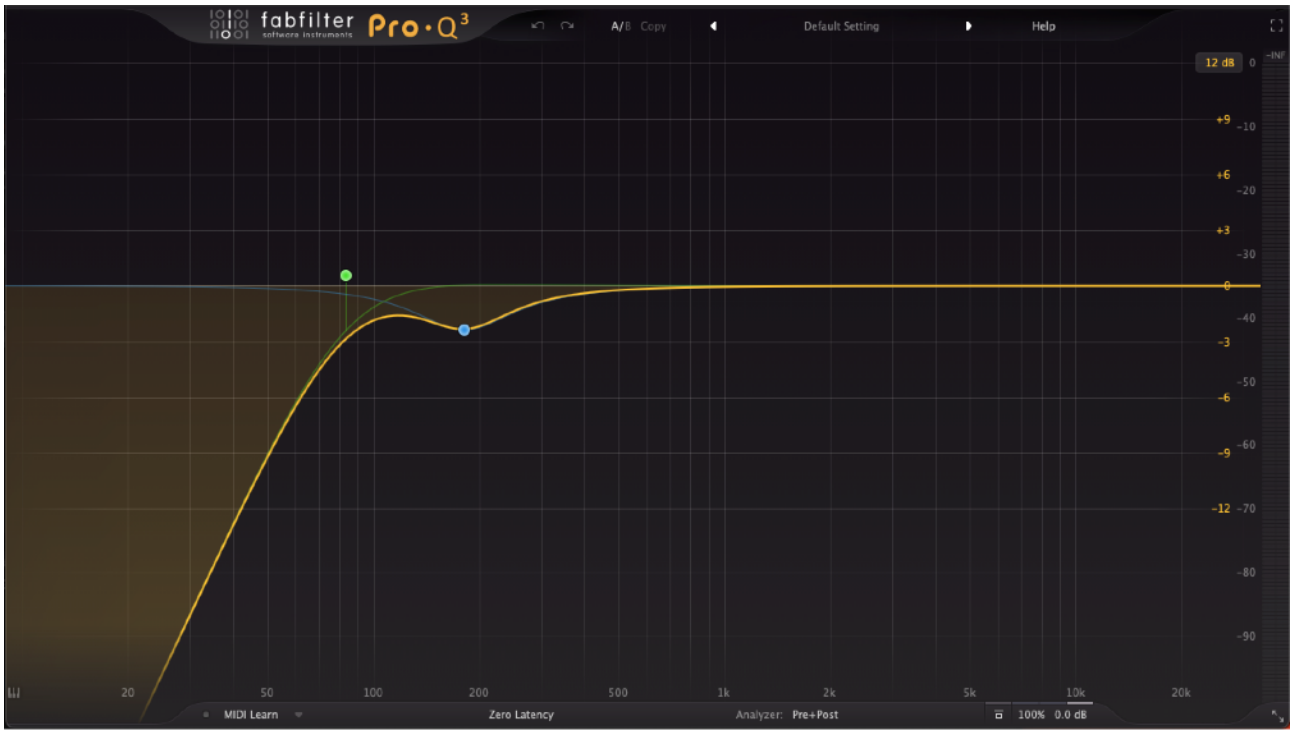


S. Electric guitar filtering.

T. Lead guitar filtering.

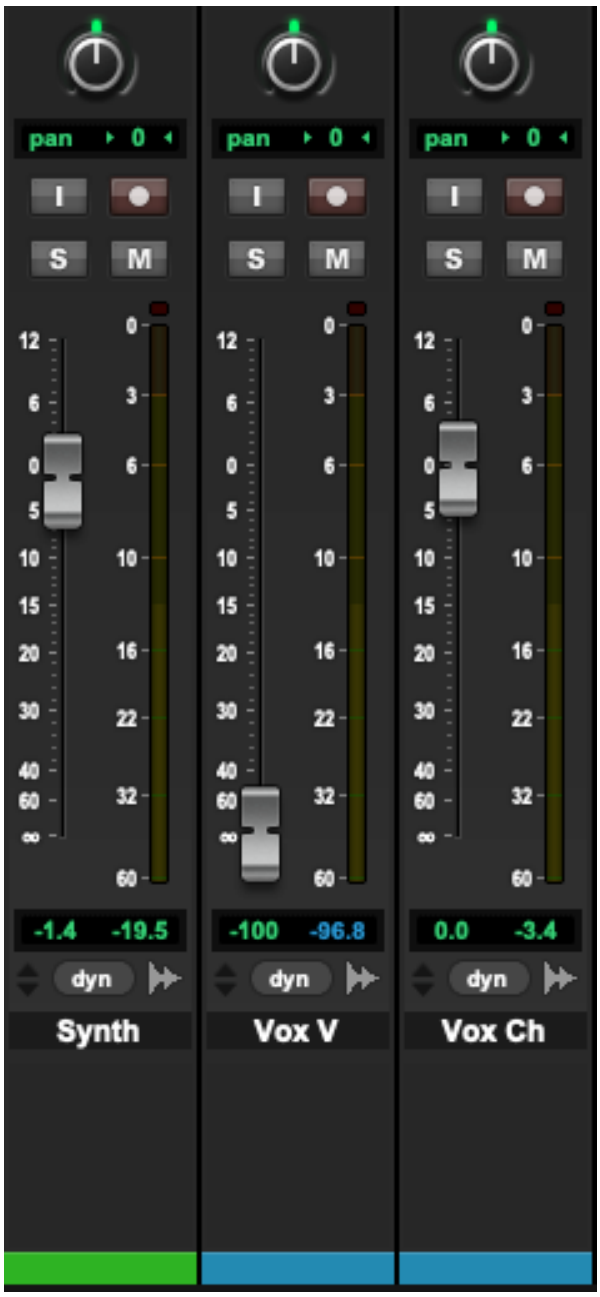
U. Lead vocal filtering.

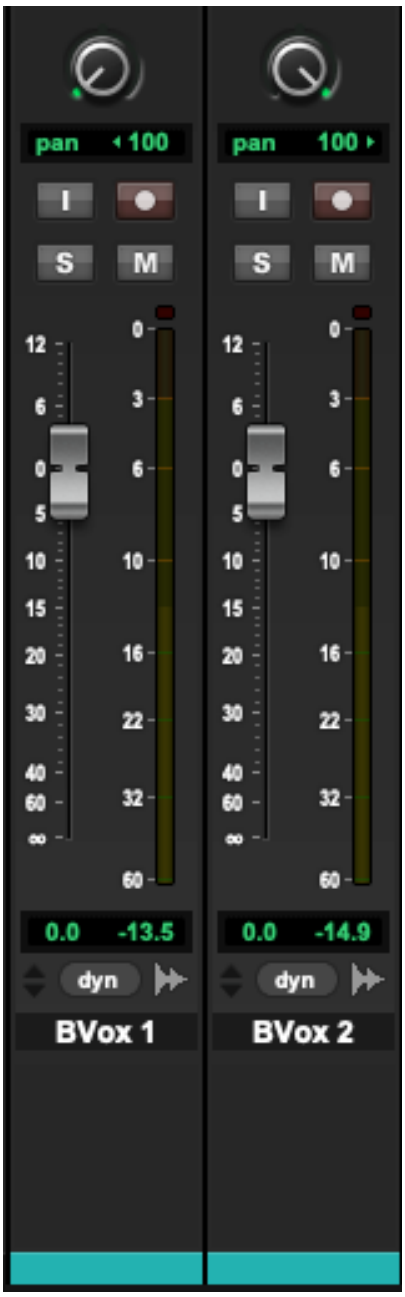
V. Piano filtering.



X. Synthesiser filtering.

Y. Panning of individual tracks in the mix.


pan 0
I
S
M
12
6
0
5
10
15
20
30
40
60
∞
0
3
6
10
16
22
32
60
-1.4
-19.5
dyn
Synth
pan 0
I
S
M
-100
-96.8
dyn
Vox V
pan 0
I
S
M
0.0
-3.4
dyn
Vox Ch


pan 100
I
S
M
0.0
-13.5
dyn
BVox 1
pan 100
I
S
M
0.0
-14.9
dyn
BVox 2


pan 0
I
S M
-5.2 -13.8
dyn
Bass
pan 31
I
S M
+1.1 -6.9
dyn
AC H
184
pan 20
I
S M
+0.9 -3.7
dyn
AC L
Coles
pan 0
I
S M
-4.9 -11.9
dyn
AC Amb
414
pan 0
I
S M
+4.5 -7.6
dyn
Ld Gtr Mic
121
pan 0
I
S M
+0.9 -8.2
dyn
LdGtrSnglN

Z. Bass equalisation and compression.

AA. Acoustic guitar equalisation, compression and chorus effect.

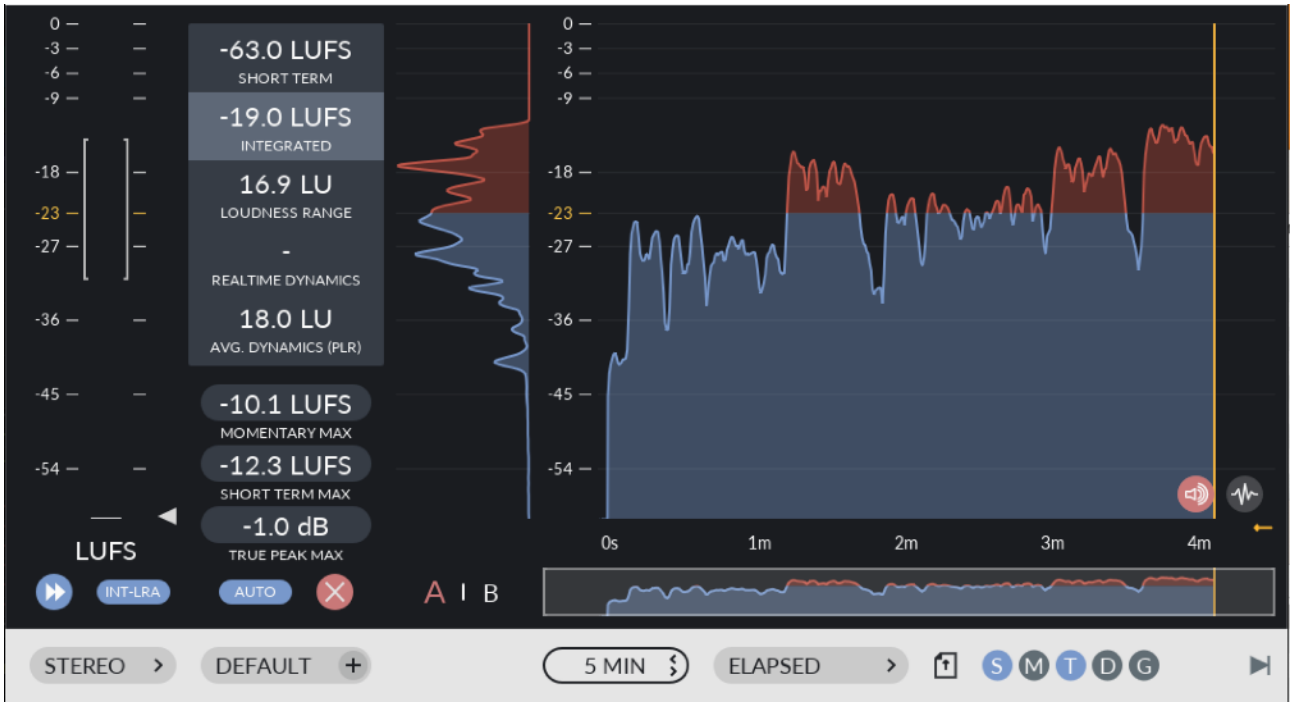
BB. Lead vocal equalisation, compression and de-essing.


A→B
Load
Save
?
Setup A
Audio
Split
Frequency
5692
SideChain
Monitor
Audio
S Chain
Threshold
Atten
Output
-30.0
0
20
40
60
80
0
-3
-6
-12
-18
Inf
-inf
0.0
-6
-12
-18
-24
-30
-inf
-inf
DeEsser

CC. Reverb effect and equalisation.

DD. Elements sent to reverb return track.

EE. Integrated loudness, true peak maximum and loudness range of the final mix.



FF. Integrated loudness, true peak maximum and loudness range of final master.

GG. Answer for the final question on Spotify editorial playlist application submission.

Lighthouse delves into topic of loss of a loved one and emotional themes of grief. It was written a from the perspective of someone scared to be alone in the grief that they're feeling. Lighthouse will be promoted on social media and featured in local publications in advance of the release date.