

Rate and Review: Exploring Listener Motivations for Engagement with Music Podcasts

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Introduction

For music fans, podcasts have become an alluring aspect of contemporary music reception practice. While radio and music streaming services provide convenient routes to music discovery, podcasts provide a unique space to engage with informed discussion about favourite songs, records and artists in a way that is typically unconstrained by the conventions of traditional broadcast media, such as the demands of radio playlists or interruptions for news bulletins (Rosenblatt, 2021). As Verboord (2009, 2012, 2013) has demonstrated through empirical studies of how consumers use and rate different types of cultural mediators to inform themselves on cultural matters, reviews are central to podcast recommendations. Seeking ever higher levels of engagement from listeners, podcast hosts are frequently heard encouraging their audiences to ‘rate and review’ their shows in order to bolster reputation in the community and achieve chart placings. In this research, we are interested not only in how these reviews shed light on listener motivations for engagement with music podcasts, but also the problems associated with analysing the data available from podcast platforms. This is notable in the age of streaming, because, as Hesmondhalgh (2021) notes, prominent criticisms of contemporary audio consumption include claims that streaming encourages functional experiences that are typically passive, unchallenging, fragmented and limited with regard to discovery.

To that end, we have conducted an analysis of ~16,000 listener reviews of the Top 50 podcasts in the Apple (UK) music chart. Through the use of NLP (Natural Language Processing) algorithms,

we have organised reviews into seven discrete topics. By exploring these topics in the context of wider debates about consumption and fandom, we produce conclusions about the motivations of listeners for engaging with music podcasts, but also draw on critical frameworks that allow us to assess the effectiveness of this kind of analysis. Our findings reveal that music podcasts inspire a variety of motivations connected to broad themes such as listening routines, programme formats, knowledge development and relationship building, however, the findings raise questions about participatory cultures (Jenkins, 2009), particularly issues such as gender visibility (Kearney, 2007; Williams, 2013), which can't be answered in a nuanced way without a level of granularity in the data that is presently unavailable to researchers of podcast platforms.

We begin by scoping the parameters of music podcasts and some of the literature from the field of podcast studies which informs our understanding of listener motivations. Following this, we explain and problematise our replicable data-based methodology, which is also presented as a companion to this article.¹ We analyse the results to demonstrate how these observations can be used to better understand listener motivations, but also to critically engage with the method and its limitations in the context of a broader media and cultural studies framing. We conclude with brief comments about the potential for epistemic responses to data-related technologies, and speculate on future avenues for research using this methodology.

Scoping the field

In recent years, podcasting has become an important part of the media landscape, facilitated through its adoption by a range of stakeholders from independent producers to mainstream media companies. With over 15 million listeners in the UK, set to rise to almost 20 million by 2024 (Statista, 2021), understanding the motivations for podcast listening has become an important dimension of both market-based research and academic inquiry (McClung and Johnson, 2010; Wrather, 2016; Chan-Olmsted and Wang, 2020). With a large proportion of podcast consumption taking place via platforms, apps and services provided by technology companies in the streaming space (Hamilton, 2019), major players like Spotify have invested in celebrity hosts

such as Joe Rogan, paying \$100m for exclusive rights to his show (Steele, 2020), and have developed original music podcasts like *10 Songs that Made Me* (Hissong, 2021). Within the music industries, companies like Sony Music, Universal Music and Atlantic Records have created dedicated podcast teams and partnerships designed to showcase their assets, and strategically further their relationships with organisations like Spotify and Apple (Music Ally, 2021).

As popular music scholars and content producers, we have remained closely engaged with how podcasts have emerged as an important component in the promotional cycles of music products. Many well-known musicians have appeared on shows like *Song Exploder*, *Rockonteurs* and *Sodajerker* as part of marketing campaigns for new albums.² Artists like Jesse Ware and George Ezra have also originated their own series, drawing their audiences from existing fanbases and attracting new listeners (Davies, 2021). *Song Exploder*, which explores how musical ideas are developed into records, has exported its format to television with a Netflix documentary series (Shaffer, 2021, Giuffre, this volume). These recent shows complement established offerings like *Sound Opinions*, one of several syndicated radio shows in the United States made available worldwide as podcasts.³ As recording equipment has become cheaper and more accessible, vast quantities of audio material have emerged from a large and dedicated contingent of independent producers making shows and distributing them with no outside support (Lovejoy, 2021). Whether they are produced independently or with the support of larger media organisations, the opportunity for in-depth analysis or long-form conversation about relatively niche aspects of creative work, such as songwriting or record production, has proven popular with listeners. Music podcasts like those mentioned previously have acquired millions of downloads and built loyal followings (Music Ally, 2021).

Podcasting has attracted significant scholarly attention since it came to prominence in the first decade of the new millennium (Llinares, Berry and Fox, 2018; Spinelli and Dann, 2019). Much of this work has been informed by the relationship between radio and podcasting (Markman, 2011; McHugh, 2016) as well as studies of portable listening technologies such as the Walkman,

the compact disc and the mp3 player (Du Gay, Hall, Negus et al., 1997; Sterne, 2006). The portability of digital audio in particular has informed an emphasis on listening practices in urban environments (Bull, 2000; Nyre, 2015) highlighting, for example, how audio technologies are used by listeners to supersede the natural soundscape of the modern city. Podcast delivery platforms and shows form part of a complex web of available digital services that contribute to contemporary music reception practices (Hamilton, 2019; Hamilton and Raine, 2020). These include not only music consumption via streaming platforms, download services, and online retailers, but also the social media platforms on which people discuss, share and discover music, the websites of music media companies where people glean news and information, and the online manifestations of legacy media forms such as radio and television that are now accessed through internet and mobile devices. Podcasts are thus one part of a complex music reception landscape through which listeners navigate dexterously during the course of their everyday lives (DeNora, 2013).

Despite the array of audio experiences available to the contemporary consumer, Chan-Olmsted and Wang (2020) argue that podcasts occupy a distinct space within the media landscape with their own unique consumption characteristics. Some of these characteristics are captured by previous scholarship on the work of independent podcast producers (Bolden and Nahachewsky, 2014; Markman and Sawyer, 2014) and listener participation and preference (Tsagkias, Larson and Rijke, 2010; Wrather, 2016). Perks, Turner and Tollison (2019), for example, examined reasons for podcast listening by surveying over 700 podcast listeners across two separate studies. The results produced an 18-item uses and gratifications scale which could be interpreted according to four main factors: 'Controlling Edutainment, Storytelling Transportation, Social Engagement, and Multitasking' (2019:1). Chan-Olmsted and Wang (2020) carried out a large-scale survey of podcast users in the United States to examine consumption drivers, behaviours, and the types of offerings making up the podcast media landscape. Also framing their study with the uses and gratifications paradigm, and building on early studies by the likes of McClung and Johnson (2010), the pair found that 'entertainment, information, and audio platform superiority were the most important motivators for podcast consumption' (2020:1). While we remain

cognisant of these conclusions, our research focuses not on the benefits of podcasts in general, but instead asks what it is specifically about *music podcasts* that motivates listeners to incorporate them into their listening activities. Our aim with this article is to begin answering that question, but at the same time to a) develop a method that can be applied to other types of podcasts, and b) to think critically about the usefulness of that method.

Methodology

The method we developed for this article works through three distinct phases. In the first, we scraped data relating to podcasts and reviews from a variety of online sources. In the second, we processed data using NLP (Natural Language Processing) algorithms to facilitate our analysis and research. In the third and final phase, we visualised the results to assist in our evaluations. The coding script at the centre of the workflow is written in the R language.⁴ The wider community around R is predicated on the sharing of knowledge and resources, and it is in this spirit that we present our method as part of the contribution made by this article. By sharing what Sandvig and Hargatti (2015) refer to as the ‘benchwork’ of our process, our intention is to respond to their call to “reveal the messy details of what [we] are actually doing, aiming towards mutual reflection, creativity, and learning that advances the state of the art” (2015:5).

The process takes as its starting point the URL of a podcast chart published on the Chartable website.⁵ Chartable is a data analytics service that gathers metrics associated with podcasts. It is used primarily by podcast producers as a means of understanding the size, reach and composition of their audiences, and by advertisers seeking to understand the effectiveness of ads delivered to particular segments of the market. Chartable offers a paid tier service that provides access to numerous metrics and analytical tools. On Chartable’s publicly-accessible site, they also provide information on podcast charts published by numerous services, broken down into a variety of genres. One collection of charts available from the Chartable service are the Apple Podcast Charts. The chart we analysed was the Apple Podcasts - Great Britain - Music chart⁶, using data gathered on 6th April 2021. Because podcast charts are updated regularly, we archived a

snapshot of the chart using the Internet Archive's WayBack Machine.⁷

The first part of the workflow provides a coding script that enables researchers to extract key information from these published charts.⁸ Alongside the relative chart placings of each podcast, two URLs are extracted. The first is the RSS feed address which enables the real time delivery of content and related metadata to platforms offering podcast content to audiences. This feed includes episode summaries, release dates, show durations, and so on in a standardised format, with information organised according to a number of common variables.⁹ This means that the information extracted from the various RSS feeds can be organised into a single data frame according to the principles of Tidy Data (Wickham, 2014). The second URL retrieved is the link to a given podcast on the Apple store, which in turn contains its unique Apple ID. With this information, the process iterates across 155 international Apple stores and retrieves reviews for a given podcast.¹⁰ In the case of the chart being analysed in our research, this data extraction process returned information on the top 50 podcasts in the Apple Music chart, including data on 6,596 episodes and 16,811 reviews.

In the second phase of the workflow, the data is organised and manipulated to clean and rearrange it in preparation for processing by a series of unsupervised machine learning algorithms designed for NLP tasks.¹¹ This phase of the process concentrates on the preparation of text contained within reviews so that computational text analysis can be performed.¹² For this, a document term matrix (DTM) is created. This is a large data frame that splits the texts contained within each element of a given corpus to its component words (i.e., our 16,811 reviews) and counts the number of times each individual word occurs in each element. Finally, a 'clean' document term matrix is visualised. Visualising word frequencies at this stage is useful for two reasons: it enables the researcher to begin gaining a broad understanding of the corpus; and it enables iteration through additions and removals of stop words to further weed out elements of unwanted text not removed by automated text cleaning. Once the text data is cleaned, two unsupervised machine learning algorithms are deployed. Topic modelling has been defined by Blei (2012) as a process that "provides a suite of algorithms to discover hidden

thematic structure in large collections of texts. The results of topic modelling algorithms can be used to summarize, visualize, explore, and theorize about a corpus” (Blei, 2012). Topic modelling processes the text according to the collocation and relative frequency of words held within each review. This facilitates the emergence of broad ‘themes’ or topics that the researcher can examine. Sentiment analysis, meanwhile, scores documents based on the appearance of words and allocates ‘positive’ and ‘negative’ scores (Jockers, 2015). The combined process produces a dataset containing the original text and other data extracted from reviews (e.g. dates of review, country of origin, etc.), and a number of numeric and categorical variables that can be visualised to aid the exploration of results.

In the final phase, a number of interactive visualisations are created enabling researchers to explore the broad overview of results by combining different data variables in various configurations.¹³ For example, researchers may wish to explore reviews according to date of publication and topic allocation, or by sentiment analysis and episode publication frequency. Similarly, researchers may wish to hone in on reviews for a particular podcast, from a given country, and within a certain time frame. The visualisations are deployed as an interactive document that provides a number of database filters that enable researchers to automatically produce visualisations and data frames that can facilitate close readings of texts (reviews) to complement the distant readings afforded by computational processing. In short, the method we present affords a number of different types of analyses.

Before proceeding, however, it is necessary to acknowledge that a broader set of debates exist regarding the deployment of methodologies of this kind in the study of cultural phenomena, and their potential weaknesses. Although some, such as Piper (2015), have argued that there is a reciprocal potential in combining the computational and the cultural, others question the efficacy of such an approach. Kitchin (2014) summarizes the arguments against computational techniques, noting they can produce “weak, surface analysis, rather than deep, penetrating insight...[and can be] overly reductionist and crude in [their] techniques, sacrificing complexity,

specificity, context, depth and critique for scale, breadth, automation, descriptive patterns and the impression that interpretation does not require deep contextual knowledge” (2014: 8).¹⁴

Acknowledging this criticism, we argue that our method augments approaches taken by extant studies. Podcast reviews are voluntary and the data incorporates everything that is valuable to the listener: from a show's concept and format, to the meaning that the content has in the life of the listener. This affords us new insights and perspectives on why podcasts have become a key element of contemporary music reception practice. However, as we noted earlier, within media and cultural studies there are well-established theories about the nature of participation and fandom, with much of the recent literature exploring practices within online communities. Hine (2011), for example, argues that access to the internet is segmented according to socio-demographic characteristics such as nationality, age, gender, education, ethnicity and income. Such biases in favour of those who participate, and especially those who *actively participate*, renders any analysis partial. This is compounded by the fact that data of this kind is not made available to researchers through podcast platform APIs.¹⁵ As a result, listener comments shouldn't be taken at face value. Communications from podcast audiences are embedded within cultures that legitimise certain listening practices over others, and this can affect the balance of views expressed by different genders, and the visibility of marginalised groups who may have alternative perspectives. Reflecting on our own positionality, as middle-aged, white, male researchers, there is also the danger that our own socio-political, economic and cultural experiences could lead us to interpret the data in ways that may lack nuance, or an awareness of the context of others' experiences.

Results

In this section we begin with an overview of the results of our computational analysis and an initial interpretation of the reviews data and Topic Modelling. Then we discuss how those results enabled us to group together particular types of podcasts according to broad motivational themes and illustrate those themes with example reviews. Finally, we interrogate whether the level of detail achieved by the analysis is sufficient to address the core concerns outlined in the previous

section, highlighted by our critical frameworks. As stated previously, we gathered data on the Top 50 podcasts in the ‘Apple Music – Great Britain – Music’ chart, which totalled 6,596 episodes and 16,811 reviews. A total of 46 of the 50 podcasts were present in the reviews database.¹⁶ The 16,811 reviews were distributed unevenly across those podcasts; 78.44% of the total reviews were written about 10 of the 46 podcasts. The average number of reviews per podcast was 348.54. The process of topic modelling revealed seven distinct themes that the research team interpreted in terms of being linked to descriptions of motivations for engaging with podcasts. These themes are ascertained by examining the key words associated with a given topic.¹⁷ Based on the appearance of words in each topic, the researchers assigned the following themes to each of the seven computationally revealed topics.

1) Routines of Listening / Connection: In this topic, reviewers discussed how they connected with a particular podcast and described listening regularly, and why they became a fan of a given podcast. Example words used: *every, week, episode, subscribe, download.*

2) Experiential / Dance Music: This topic featured language closely associated with clubbing and dance music culture. Example words used: *trance, mix, house, club, set.*

3) Learning / Knowledge: In this topic reviewers discussed gaining new knowledge or insight about artists, songs or the creative process. Example words used: *artist, discover, insight, inspiring, creative.*

4) Format: Here, word allocations leaned heavily towards descriptions of how podcasts functioned in terms of format, with a particular focus on guests, interviews, hosts and questions. Example words used: *interview, guest, host, question, conversation.*

5) Pleasure / Satisfaction: This topic relates to general descriptions of why podcasts are enjoyable and engaging, and elements that people found to be fun. Example words used: *enjoy, funny, happy, cool, nice.*

6) Celebrity / Personality: Closely related to pleasure and satisfaction, this topic leaned heavily towards the personalities of hosts or guests, usually well-known celebrities or media figures. Example words used: *favourite, mood, energy, joy, crazy.*

7) Relationship / Fandom: Finally, this topic contained mentions of artist names, fandom, stories and histories and seemed to relate to the relationships people have with particular bands or artists. Example words used: *Dolly (Parton), fan, person, deep, history*.

Figure 1: Proportion of total reviews for each podcast allocated to one of seven topics.

These initial interpretations based on word frequencies and topic allocations were augmented by visualisations that demonstrated the extent to which all reviews for a given podcast fell into one of the seven topic areas. Figure 1 shows this, and reveals that to a large extent the proportion of reviews in each topic differs from podcast to podcast, with often one topic being more dominant than others. This enabled us also to divide the seven topics further into two distinct groups. Those related to Routine/Connection, Format, and Pleasure/Satisfaction (Topics 1, 4 and 5 respectively) were interpreted as general descriptions of why people engage with the podcast format as part of their everyday music reception practices. Podcasts form part of listening routines, which encourage subscription and regular listening. Here, the familiarity with the format of podcasts is a key factor in the pleasure and satisfaction derived from listening. These are illustrated by the following examples:

The podcast, at about an hour, fits my daily schedule perfectly.

Honestly, I started downloading this podcast a while back and now I look forward to a Tuesday night so I can get the latest episode...I drive a lot at work and it's great to help the miles fly by.

Look forward to this podcast every week and sometimes think it was 2 a week to get me through my gym sessions.

Slick editing and the presenters voice and style make Straight Up easy to listen to.

When exploring results associated with Topic 3 - which our analysis linked to a popular format of music podcast that features interviews with songwriters and musicians and/or in-depth analysis of song composition, structure and performance - the motivations of listeners can be seen to centre on the acquisition of new or improved knowledge about the music and musicians they enjoy. In many cases also, the interview or music analysis format is a route to music discovery as regular listeners are exposed to music or artists they were not previously familiar with.

Bob Boilen consistently breaks convention in his often insightful and always fascinating interviews/features. He never fails to ask his impressive list of guest artists (Thom Yorke, M Ward, Animal Collective, Randy Newman and many more) intuitive questions that satisfy my curiosity [curiosity] from both the perspective of an avid music fan as well as a musician/composer.

Great show, revealing the approaches, the ideas, the technique and the inner workings of some of the great classic songs, and the art of songwriting's greatest exponents. Well explained, interesting, entertaining and in-depth. If you have any interest in the practice of songwriting, you need to be subscribed to this podcast.

This is an essential show for people that love music and would like to be exposed to new music. Even when artists I'm familiar with are played, it's always their new music and usually before its release. The hosts are entertaining and I love their themed episodes. It's like hanging out with friends that love music and being part of their conversation.

Prevalent in both the podcast chart itself and the automated topic interpretation are shows concentrating on dance music culture which usually feature extended DJ mixes from popular clubs and festivals. It was these podcasts that featured most heavily in Topic 2. Some examples

from the reviews illustrate how listeners are motivated on the one hand by the perceived quality of the mixes available - both in terms of the technical expertise of the DJs and the selection of music - but more broadly by the availability of new and old mixes in a free, regularly delivered, convenient and portable format.

Downloaded the first & last podcast before going on holiday in Sharma El Shaik & they made my lazy, sunny days lying on the beach so uplifting & enjoyable! Great tunes, Great mixing, GREAT DJ. Keep up the good work.

Unreal. How you get this quality of trance for free is beyond me. The best podcast in the world.

The latest in trance and progressive music, with very polished production from three of the genre's best, guys that really love what they do. If you get the chance, see them live - you will not be disappointed. Excellent guest mixes from both established and up-and-coming DJs and producers from around the globe. It doesn't get much better than this.

I've only just discovered podcasts and I'm so glad I did, by far Tiesto is my number 1 dj and trance is the best genre of dance music out there it just takes you on a journey like never before, and tiesto really expresses his musical expertise [expertise] on this podcast.

The responses captured in Topic 6, meanwhile, leaned heavily towards podcasts fronted by, or featuring, well-known personalities, whose style of humour or backstory resonates with audiences and provides motivation for continued engagement. There is a sense here that the informal nature of the podcast format - as opposed to 'official' media appearances - provides a degree of access and insider knowledge not available elsewhere.

Been waiting for this for ages. I don't feel that Radio 2 made the best use of their talent considering they have Graham Norton, Alan Carr and Paul O'Grady and until now never bothered with a podcast. I love Graham's gentle humour to ease me into the weekend. Full marks!

Love this! Very interesting to listen too! Jaykae has to be one of the realist grime artists out there right now!. Geezer is down to earth man.

Great podcast, allows you to actually know what these celebrities are like which is sick.

Overall the podcasts never get boring or drag on and you learn about big people's backgrounds.

Topic 7 contained words associated with fandom of particular artists and bands, and the visualisations revealed that this topic was primarily populated by podcasts that focused solely on one artist. Examples below are taken from podcasts that focus exclusively on Kanye West, Joy Division, and Queen. Here, the long-form affordance of podcasts allows for a detailed exploration of information that fans of particular artists or styles of music appreciate.

One of the best music podcasts I've ever listened to. The explanation goes so in depth into the possible meaning of what Kendrick Lamar / Kanye West's expression is and links back to in depth research also of history. When you want to know what a song means but don't know where to begin to research it this literally is the heaven for inquisitive minds.

When Ian Curtis died I was 19 and I remember being upset. 40 years on I was listening to episode 4 while out for a run and found myself in tears. Great to hear the voices of Tony Wilson, Peter Hook, Bernard Sumner et al. Maxine

Peake's narration is great, absolutely the right tone. It's a credit to all those involved. I hope this wins many awards.

My friend, a fellow Freddie and Queen fan found this podcast and we've been on fire ever since, gushing to each other about what we've heard! I cannot believe the detailed information that comes out and the time just zips by! We learn so much and they're all so fun to listen to. It helps to hear from English people as those of us not from Queen's country of origin I feel do miss out on the nuances of living in a culture that created this band.

From our interpretation of the results, it seems engagement with music podcasts is typically a result of seven interrelated factors. The examples provided above demonstrate how the method we have developed helps reveal a variety of motivations for engaging with music podcasts, and how these are in turn linked to particular styles of programme-making. By exploring their different manifestations, we highlighted specific ways in which knowledge, experience, routine, format, pleasure, celebrity and fandom support and nurture audience engagement. The opportunities for podcast producers to obtain insights into the reasons why their work is valued are typically limited to download statistics and chart placings. There are therefore significant possibilities this methodology elucidates that could provide podcasters in a variety of genres with a way to better understand what listeners value about their podcasts and how they are received compared to similar or competing shows. Nonetheless, while such information might be of use to content producers seeking to adopt best practice, the lack of specific demographic data will prompt questions for scholars about the extent to which we can trust this kind of segmentation. What are the potential consequences of this taxonomy for podcasters, listeners, and researchers?

Certainly, we acknowledge that with even with the best intentions, any process that involves human interpretation of computer-generated results has the potential for biases to be introduced, either in the way the system has been trained (see, for example, recent debates about equality and fairness in AI systems) or by paying too much attention to the themes identified by the

computational analysis, thus marginalising less obvious, or hidden modes of engagement. In short, conclusions could be achieved without considering how the data privileges the collective views of one group over others. The composition of monthly podcast listeners over the age of 16 in the UK is generally split 50/50 on gender (Edison Research, 2021). However, scholars have persuasively argued that the interests of male fans are frequently legitimated in a way that they aren't for women. McRobbie and Garber's (1977) pioneering work on the lack of visibility of girls and women in early subcultures argued that literature reinforced stereotypes about females in youth culture while simultaneously providing ways for males to negotiate the complexities of their lives. Likewise, Hill (2016), Straw (1997), Whiteley (1997) and others have tackled the gendered politics of music fandom by examining the pleasure offered to women through collecting, or typically male-dominated genres (such as metal), and the myths that surround the participation of women in these cultures. From this work, we can observe that if the appreciation of craft is commonly gendered as masculine while the enjoyment that women might find in the music is frequently dismissed or overlooked, then this problem could be replicated in our data, and our interpretation of it. These debates are ongoing: Kearney (2007), for example, recovers the work of McRobbie and Garber in her analysis of the 'productive spaces' that shed light on the nuances of girls' participation in cultural production and Williams (2013) explores the cultural dismissal of young female fans of the band Muse by showing how hierarchies based on gender, age, and knowledge continue to police contemporary fan cultures. By placing our findings in the context of these wider critical frameworks, we recognize the ways in which these voices, and the questions they raise, might be absent from the data, and seek a more inclusive methodological approach with future work.

Conclusions

In this paper, we have presented a replicable model for the large-scale collection, analysis and visualisation of data related to podcasts. This method has been illustrated through describing the process of analysing 16,811 reviews gathered about music podcasts in order to understand the motivations of listeners. Our interpretation of the data revealed seven topics we see as key

motivating factors in the relationship between listeners and music podcasts. This research was motivated by a desire to understand how podcasts are intersecting with contemporary music reception practices, and to explore what motivates listeners to engage with music podcasts as part of that process. We demonstrated that podcasts afford a particular set of motivations that are in turn linked to specific styles of programme-making. Here, specialised and often niche subject areas allow for long-form programmes that provide DJ mixes, a degree of closeness to well-known personalities, and conversations generating new knowledge about recorded music and the creative process. We suggest this method is equally applicable to podcasts in different genres, or it could be used to answer an alternate set of questions. The same data set could, for instance, facilitate a more statistically-focused study of publishing schedules, chart placings and audience ratings. Alternative analytical routes afforded by our method, including statistical analyses of episode length or frequency, or longitudinal studies that explore podcast reception over time in relation to listener routines, could also produce new insights about engagement. Furthermore, the analysis presented here focuses on one genre chart from a given week, whereas the method provides scope for a study of numerous charts across time. These potentials, we suggest, help make the case for further use and development of the method we present.

We have also highlighted some of the ways in which the findings could be understood to lack nuance in response to questions within the broader field of media and cultural studies about the socio-demographic characteristics of audiences and their behaviour. We believe that further critical development and practical use (and, thus, use cases) of studies of this kind will ultimately help address and confront these issues. As such, the method presented here is intended as a starting point, and we suggest that its potential lies precisely in the sorts of critical questions scholars use to interrogate its effectiveness. In reflecting on the affordances and limitations of both our method and the analysis derived from it, we suggest that the data-led and machine-derived techniques deployed here are intended primarily as a means of assisting scholars in their own studies of podcasting, and our suggestion is that our method may help that research by providing additional context to studies built around - for instance - listener surveys, ethnographic studies of podcast production, or content analysis. Indeed, experimental and practice-led

approaches could enable popular music scholars and listeners alike to develop better epistemic responses to data-related technologies. We make no value judgments about which of these may be the more useful applications of the method, rather we invite scholars to adapt it for their own ends. We present our approach as a means of starting a wider discussion - amongst radio scholars, popular music scholars, those focusing on podcasts, or beyond - about how, together, we may develop an *array* of methods that can collectively help us better understand the role and function of podcasts in contemporary popular culture.

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Endnotes

¹ <https://www.popmusicresearch.org/post/rate-review-partone>

² <https://songexploder.net>; <https://www.rockonteurs.com>; <https://www.sodajerker.com/podcast>

³ Another notable example is Bob Boilen’s *All Songs Considered* from NPR which debuted over 20 years ago.

⁴ R is a free, open-source programming language initially developed by Ihaka and Gentleman (1996) as a piece of statistical software, but through its adoption by a global community of developers and researchers, R is now also used for a variety of tasks associated with data science and – closer to the aims of this article - digital humanities research (Berry, 2011; Arnold et al., 2019).

⁵ <https://chartable.com>.

⁶ <https://chartable.com/charts/itunes/gb-music-interviews-podcasts>.

⁷ <https://web.archive.org/web/20210406145316/https://chartable.com/charts/itunes/gb-music-podcasts>.

⁸ https://github.com/popmusicresearch/podcast_data

⁹ See Sharpe (2020) for a more detailed review of how RSS/XML feeds are used by podcast producers.

¹⁰ A more detailed explanation of how this process retrieves information is provided in the accompanying workflow document: <https://www.popmusicresearch.org/post/rate-review-partone>.

¹¹ For example, data gathered regarding the publication dates of episodes and reviews are held within character strings. In order for processing and visualisation by the R package, these elements are converted to date formats.

¹² To begin the process, text is cleaned of any extraneous characters (for example, emojis), words are stemmed to their roots (so that, for example, words such as listen, listening, listened, and listener are only counted once), and all text is converted to lowercase (likewise, so that Listen and listen do not get counted separately). Next, ‘stop words’ are removed. These are commonly occurring words such as prepositions that appear regularly in written text and may skew the results of analyses.

¹³ For an overview of R Markdown and interactive Shiny documents, see:

<https://shiny.rstudio.com/articles/interactive-docs.html>.

¹⁴ It should be noted that Kitchin here is summarising critiques of digital humanist approaches - rather than making this particular argument himself - as part of a wider essay regarding epistemologies of Big Data. Other recommended texts on this broader debate include Boyd and Crawford (2012) and Puschman and Burgess (2014).

¹⁵ An API or Application Programming Interface is a type of software interface offering services to other pieces of software.

¹⁶ Modes of sense checking the data are outlined in the companion method documentation. In the case of our research, four of the 50 podcasts were missing from the reviews database. *The Joe Budden Podcast with Rory & Mal* at #25 in the chart appears to be a duplicate entry, with the same podcast also present at #3 in the charts. It appears that this podcast has more than one RSS feed, and so appears twice in the rankings, but the Apple ID for both entries is the same. Reviews were thus gathered for this podcast by collecting those associated with the ranking at #3. *Word In Your Ear* (#31) and *Laura Barton's Notes from a Musical Island* (#42) do not have any written reviews, only star ratings. *Field Musicast* (#50) is a relatively new podcast and only had one written review. However, this was posted on 23rd April 2021 - after this dataset was collected.

¹⁷ In the aforementioned interactive document provided with this paper, readers can examine the key words associated with each topic. The document is available here: <https://craigfots.shinyapps.io/RateandReview>.