

Never Let Vinyl Down Again:

the vinyl revival amidst digitisation from the perspective of record labels

Student name: Shiloh Naus

Student number: 577330

Supervisor: dr. C.W. (Christian) Handke

Cultural Economics and Entrepreneurship

Erasmus School of History, Culture and Communication Erasmus University Rotterdam

Master thesis

June 13, 2025

ABSTRACT

Vinyl is back – or rather, has been back. And nostalgia is not the only reason for it. Since 2006, the sales of the vinyl records have been growing globally, which led to the creation of the term – the vinyl revival. One might think this a rather odd phenomenon to take place in the age of digital music, which provides higher convenience with more affordable prices than ever before in the history. Vinyl records, with their fragility, higher prices and technical requirements seem to request the most effort from the consumers, yet it is this specific format that endures its resurgence. Therefore, consumers do not long for any type of physicality, but this specific one, that is more demanding.

Consumers clearly care about vinyl records. Vinyl records can be said to carry a special cultural status, which might make it difficult to think of these objects as a part of a bigger strategy of the music industry. Moreover, the comeback of vinyl records into the market would not be possible if it was not for the industry that has decided to supply them. Therefore, this thesis attempts to explore how vinyl records are imbued with strategic thinking of record labels – major and independent. By means of quantitative content analysis, this research uses a sample of 400 vinyl releases from 2009 and 2023, sourced from *Discogs*, and explores how often various features of vinyl records occur and which ones are more to be linked with majors and independents.

The findings suggest that major labels comply with the expectations and theory – they follow mass appeal and a commercial logic when designing their releases. Independent labels, however, do not show one shared strategic approach, apart from one unexpected element – coloured records, which might be linked to their tight connections with their niche markets, that have their own aesthetic conventions shaping what releases look like.

Key words: vinyl revival, digitalisation, record labels, music industry

Acknowledgements

The greatest thanks need to be given to my biggest supporters, my parents, Joanna and Paweł. Getting this far would never be possible without your continuous love and support. You are, truly, the best.

To dr. Handke, for enthusiasm, guidance, but most importantly, patience. You needed a lot of it, for which I am grateful. Thank you for remaining curious and open-minded, letting me explore and express my ideas while always offering advice.

To Efe, Denise and Filip, who have carried me, let me talk about vinyls and loved me the hardest when I needed it most. Without you, I'd forget to eat and sleep.

To *Permanent Regret*, for making this custom cover art. I know it was an unusual project, and you made it beautifully.

Lastly, to the people I have encountered while working in music and nightlife. You have made me so persistent, revoked my passion for music, and above all, made me annoyed with vinyls, which led me to writing a whole thesis about it.

Table of Contents

1. Introduction	5
1.1. Context.....	5
1.2. Motivation	6
1.3. Structure.....	7
2. Theory	9
2.1. Demand for Vinyl – Tangibility, Emotions and Formats	9
2.1.1. Understanding consumer motivation for vinyl	9
2.1.2. Vinyl as a cultural commodity	14
2.2. Supply of Vinyl – Digitalisation, Industry and Labels	15
2.2.1. Formats in today's recorded music industry.....	15
2.2.2. Record labels in the digital age	19
2.3. The Role of Vinyl in Record Labels' Strategies.....	24
2.3.1. Vinyl as a premium product.....	24
2.3.2. Strategic use of vinyl.....	25
3. Methodology	27
3.1. Choice of method	27
3.1.1. Research question.....	27
3.1.2. Research design.....	27
3.2. Operationalisation	28
3.2.1. Strategies - Dependent variables	28
3.2.2 Record labels - Independent variable.....	31
3.3. Sample and data collection	32
3.3.1. Sampling procedure.....	32
3.3.2. Data collection.....	33
3.4. Data.....	34
3.5. Data analysis.....	37
3.5.1. Analysis I: different strategies.....	37
3.5.2. Analysis II: interdependencies between features of vinyl record.....	37
4. Results	38
4.1. Chi-Square tests.....	38
4.1.1. Consumer reach.....	41
4.1.2. Strategic positioning	41
4.2. Two-sample t-test	41
4.3. Logistical regression	43

5. Discussion	46
5.1. The obvious – majors play it safe.....	46
5.2. The unusual – independents play with fire	47
6. Conclusion	50
6.1. Limitations	50
6.2. Future research	51
References.....	53
Appendix A: Data for Figures 3, 4, 5 and 6	60
Appendix B: Codebook	62
Appendix C: Subsidiaries of major labels.....	65
Appendix D: Declaration of AI	70

1. Introduction

1.1. Context

One might say that a vinyl record belongs to a past era of music, rendered obsolete by the abundance and convenience of digital music, and now serves as little more than a cultural artefact for niche collectors and purists (Lüders et al., 2021, p. 35). Thanks to the emergence of new technologies, music has become more accessible and ubiquitous than ever before. However, despite this convenience that digitalisation has brought, the resurgence of this physical medium comes rather unexpectedly. The continuously growing trend of the sales of vinyl records, which was first recorded in 2006 and has been steadily ever since, has led to coining a term for it - the vinyl revival, or vinyl resurgence (Remic, 2015, p. 2). Interestingly enough, the vinyl revival has been happening alongside the rise of digitalisation of the recorded music industry, which creates a peculiar landscape of the said industry (Bartmanski & Woodward, 2013, p. 4).

This revival is not limited to music from past decades and feelings of nostalgia, but it has been embraced by the young generation of artists and consumers, who have grown up with digital music. Enter *BRAT* by Charli xcx (2024), a hyper-pop album that “was designed to reach as many people as possible” (Snapes, 2025), which is applicable not only on a level of branding and aesthetic (*BRAT* being unapologetic, ironic, deeply relatable with aesthetics that refers to online meme culture), but also on a level of format. *BRAT* is a perfect example of balancing the niche and the mainstream, which is also visible in a variety of available formats. Besides online presence across different platforms, *BRAT* is available in a digital form (streaming and MP3), but also on CDs and vinyl. Moreover, Charli xcx did not simply release a vinyl version of *BRAT*, she released *several* vinyl versions of the said album, e.g. *brat and it's the same but there's three more songs so it's not*, or *brat and it's completely different*. The releases vary with their colour, covers, and alternate tracklists — and fans bought them all (Zavaleta, 2025). The dichotomy of digital and analogue no longer holds, since vinyl has become an element of this digital culture (Palm, 2019, p. 645), and artists like Charli xcx illustrate it well. Through a vinyl record, she has created a sense of desire, exclusivity, and tangibility to make a more personal connection with her fans and ultimately to boost their engagement. The global success of *BRAT* demonstrates that vinyl has evolved into a new type of good as it used to be — from a regular carrier of music to a physical token

of appreciation. Nonetheless, the vinyl revival would not be possible if it was not for the strategic involvement of the recorded music industry that facilitated the vinyl comeback. Needless to say, the key actors in the recorded music industry are the record labels. There are voices that express the declining role of the traditional gatekeepers due to digitalisation of music, which allegedly led to the loss of their power (Waldfogel, 2017, p. 196; Graham et al., 2004, p. 1088), yet their impact on the industry ought not to be omitted (Pastukhov, 2024). Furthermore, there are two main types of record labels: major labels, which focus on profit, and independent labels, guided by the aesthetic values of music (Mall, 2018, p. 460).

The comeback of vinyl records into the mainstream market might suggest that a vinyl record sources its utility not from convenience, durability or affordable pricing, but from an emotional value, which is oftentimes excluded from the neoclassical economic model (Wälde & Moors, 2017, p. 272). This research is inspired by neoclassical economics, as it attempts to understand a seemingly irrational consumer behaviour by framing it as a strategic adjustment of record labels. Therefore, this paper is dedicated to answering the following research question:

How do independent and major record labels differ in their strategies to incorporate the vinyl revival amidst the ongoing digitisation of the music industry?

The research question is addressed by making use of the *Discogs* database and creating a dataset of vinyl releases from 2009 and 2023, from major and independent record labels, to investigate what strategies of these releases are typical for each type of a label. Considering the essential differences of priorities between major record labels and independent record labels (Mall, 2018, pp. 460-462), it is assumed that the type of a label strongly impacts the artistic output and commercial strategy, as reflected in the specific features of a given vinyl release. Therefore, vinyl releases of major record labels are expected to display features connected to commercial use and a general broad audience, and those released by independent record labels to be more oriented towards niche audiences and present more unconventionality.

1.2. Motivation

A vinyl record has the distinct status of a cultural artefact, which makes it unusual to think of it as a strategic choice. However, the vinyl revival has grown thanks to the active participation of many different actors (Sarpong et al., 2016, p. 113), including record labels,

and through this study, I want to investigate how vinyl records are imbued with the strategic attitudes of labels. This trend pictures the interplay between the desire for physicality and authenticity on the consumers' side and a need for profit through diverse sources of revenue on the labels' side, positioning a vinyl record as both a cultural and economic query. In essence, this research is an effort to understand the power of vinyl records as strategically shaped commodity in a heavily digitalised music industry.

In order for this paper to contribute to the field of cultural economics, the results are obtained through the engagement with prior academic literature on the digitalisation of the recorded music industry (Daga, 2015; Waldfogel, 2017; Hodgson, 2021), the business strategies employed by major and independent record labels (Bishop, 2006; Mall, 2018), and the vinyl revival itself (Whitehouse, 2023; Remic, 2015; Palm, 2019), and the scrupulous quantitative methodology. Despite opting for a quantitative approach, data analysis is conducted in an inductive manner to explore diverse patterns of vinyl production.

Apart from the pursuit of contributing to the academic knowledge, this paper also aims to present a new perspective on the vinyl revival, that can be adopted by listeners. This phenomenon can be conceptualised not only as a change in the consumption of music, whether driven by nostalgia or a desire for materiality in a digital culture, but as a calculated strategic move of the music industry. When talking about vinyl records, the focus on the emotional and aesthetic appeal seems to come forth without acknowledging the involvement of the industry that has facilitated the production and distribution of the said records. The motivation is not to fuel hostility towards the industry, but it is to demonstrate that a vinyl record, when in the hands of a consumer, is more than an execution of an artistic vision, but also a result of strategic thinking in a form of prior negotiations, marketing strategies and institutional infrastructure. It can be taken as an invitation to critically reflect on music and its formats. By looking through economic lenses, music becomes more than an art form, but a commodity embedded in the industrial processes of production and distribution, and the diversity of formats plays a crucial role.

1.3. Structure

While this paper follows a conventional structure of a scientific thesis, it also weaves a narrative that guides the reader through the story of music not only being an artistic expression but also a product of the music industry. The story starts with *BRAT* by Charli xcx to illustrate the tensions between an artistic logic and a need for commercial success, while

still balancing the system of a major record label. The second chapter carries on the story by providing a theoretical framework, which gathers relevant to this research academic literature needed for constructing of a solid foundation for the discussion. This chapter aims to substantiate and contextualise the arguments and key concepts essential for answering the research questions.

The third chapter describes the methodology used in this study. Here, data collection, sampling technique, and variables as well as data analysis. Continuously, the fourth chapter is dedicated to the results of the study. Taking into account that this paper adopts a quantitative methodology, the results are also presented in a form of tables, charts and graphs. In the fifth chapter, results are analysed and discussed in connection to the theoretical framework and the research questions. Lastly, the sixth chapter concludes the study by delineating its key insights, limitations and possibilities for future research.

2. Theory

2.1. Demand for Vinyl – Tangibility, Emotions and Formats

2.1.1. Understanding consumer motivation for vinyl

The widespread presence of digital music and its core position in today's recorded music industry might suggest that this specific format of music has a potential to be considered a superior substitute for physical carriers of music. To investigate further the relation between digital formats of music and physical carriers, I have conducted a partial conjoint analysis of various music forms: vinyl record, cassette, CD, digital downloads and on-demand streaming (Table 1). The advantage of conducting a conjoint analysis is the opportunity to demonstrate consumers' trade-offs among different attributes of each format (Rao, 2010, p. 2). While a traditional conjoint analysis is a tool of market research that requires conducting a survey among consumers to have them assess the value of each attribute, this partial conjoint analysis serves as a conceptual comparison. Various formats are compared according to technical, functional and emotional dimensions to demonstrate their differences. This conjoint analysis is created on the relevant academic literature and available online sources such as blogs and online forums, and in the case of using a non-academic source, the information has been checked across different sources.

The attributes are grouped into four following dimensions: technical characteristics (material composition, size and shape, storage capacity, playback mechanism), usability (ease of use, portability, ownership/access, durability), market value (average price for an album, playback requirements + average cost), and emotional value (scarcity/exclusivity, cultural and emotional appeal, subjective audio quality). The inclusion of technical attributes is intended to assess the convenience of each format. At first glance, these attributes might not seem as important for the consumers, as they appear as too detailed or too technically advanced. However, I would like to argue that these attributes are inseparable from the musical experience that overall is central to the consumers. The material composition indicates the fragility of a given format, thus connecting to how careful consumers need to be when handling each format. Shape and size are crucial for consumers in terms of convenience, as these properties link to storing and portability. Storage capacity indicates the duration of music a given format can carry, and it directly influences consumer convenience. Lastly, the role of playback mechanism attribute, describing a technical process of how a

given format is operated, is to demonstrate how the effort consumers might need to put into their music consumption.

Table 1

Comparative framework of different formats (partial conjoint analysis)

Dimensions	Attributes	Vinyl record	Cassette	CD	Digital download	On-demand streaming
Technical	Material composition	Polyvinyl chloride: PVC (Osborne, 2018, p.209).	Plastic + magnetic coating: ferric or chrome (T.A.P.E. Muzik, n.d.).	Plastic, aluminium, acrylic (<i>Canon Global</i> , n.d.).	Non-physical (data stored on devices of consumers).	Non-physical (data stored in servers).
	Size and shape	Circular disc, 7-inch to 12-inch (diameter)	Tape, 73x54x10.5mm (standard version)	Circular disc, 4.7-inch (diameter)	No shape, 1 MB - 1.2 GB	No shape, no size (files can't be downloaded).
	Storage capacity	Up to 28 minutes per side (<i>X-Disc</i> , 2023).	Up to 60 minutes per side.	Up to 70 minutes.	Limited by the storage of the device of a consumer.	Limited by the subscription of a user.
	Playback mechanism	Analogue. A turntable spins the vinyl at a fixed speed (RPM), and a stylus produces a signal.	Analogue. A tape head on the cassette player moves over the tape and reads the magnetic signal.	Digital. A laser reads the data from a spiral track of tiny pits and lands on the surface of the disc.	Digital. Files come in various formats and can be played back using music players.	Digital. Streaming platforms deliver music via the internet, streamed from a cloud server to a device.
Market	Average price for an album	25€–40€ per unit	10€–15€ per unit	11€–17€ per unit	2€–10€ per unit	Within the price of a subscription.
	Playback requirements + average cost	Turntable, preamp, amplifier and	Cassette player with built-in	CD player with built-in speakers,	Device for storing and playing music,	Device for accessing music through the

Dimensions	Attributes	Vinyl record	Cassette	CD	Digital download	On-demand streaming
		passive speakers or powered speakers, electricity. Average cost: €500.	speakers or amplifier and passive speakers, electricity. Average cost: €200.	electricity. Average cost: €150.	audio playback software/app, electricity. Average cost: €100.	music streaming app, Internet connection. Average cost: €80.
Usability	Ease of use	Low. Technical knowledge, advanced setup and big storage space required.	Medium. Intermediate technical knowledge, and moderate storage space required.	Medium. Basic technical knowledge, a CD player, and moderate storage required.	Medium. Basic technological knowledge and an electronic device required.	High. Access to Internet and subscription required.
	Portability	Low (Jansen, 2020, p. 12).	Medium. Possibility of a mobile cassette players.	Medium. Possibility of a mobile CD player.	High.	High (Jansen, 2020, p. 12).
	Ownership /Access	Ownership	Ownership	Ownership	Access	Access (Byun, 2016, p. 9).
	Durability	High if properly maintained. Up to 100 years. High risk of scratches.	Medium. Approximately 30 years, depending on the frequency of listening.	High. Up to 100 years (Canadian Conservation Institute, 2020).	High. Depending on the storage.	High. Depending on the cloud.
Emotional value	Exclusivity	High exclusivity (Bartmanski & Woodward, 2013, p.11).	Middle to high exclusivity.	Low exclusivity.	No exclusivity.	No exclusivity.

Dimensions	Attributes	Vinyl record	Cassette	CD	Digital download	On-demand streaming
	Cultural and emotional appeal	Connection to nostalgia, aura, iconicity (Bartmanski & Woodward; 2013, p. 4).	Era of transferability and portability (Byun, 2016, p. 6).	Transition between older formats to new digital ones.	Selectivity, personalisation, and community (McCourt, 2005, p. 252).	Democratisation of access to music (Waldfoegel, 2017, p. 211)
	Subjective audio quality	So-called “analogue warmth” coming from smooth soundwave (Jansen, 2020, p. 12).	Slightly inferior due to the “tape hiss”, which worsens with time.	Minor imperfections due to compression.	Depending on the specific format: lossy compression (MP3, AAC) and lossless (WAC, FLAC, ALAC).	Varies among different platforms, however, overall the quality is similar to CD (Jansen, 2020, p. 12).

The comparative framework, modelled on a structure of a conjoint analysis, seems to suggest that digital formats outperform physical carriers in technical, market and usability dimensions. Physical formats are fragile and bulky and require more effort in terms of finances, knowledge, and care. Whereas digital formats exist solely as electronic files, which makes them easily stored in a memory of a device, and convenient to carry around to enjoy listening whenever a consumer desires. Additionally, playback mechanisms require minimal and the least expensive setup, which has more than one function of playing music. In short, digital formats of music seem to outperform physical carriers in terms of convenience of consumers, which is also explored in studies on streaming platforms and their impact on music consumption (Waldfoegel, 2017, p. 211; Datta et al., 2018, p. 5; Marshall, 2015, p. 177; Sarpong et al., 2016, p. 109; Stead, 2020).

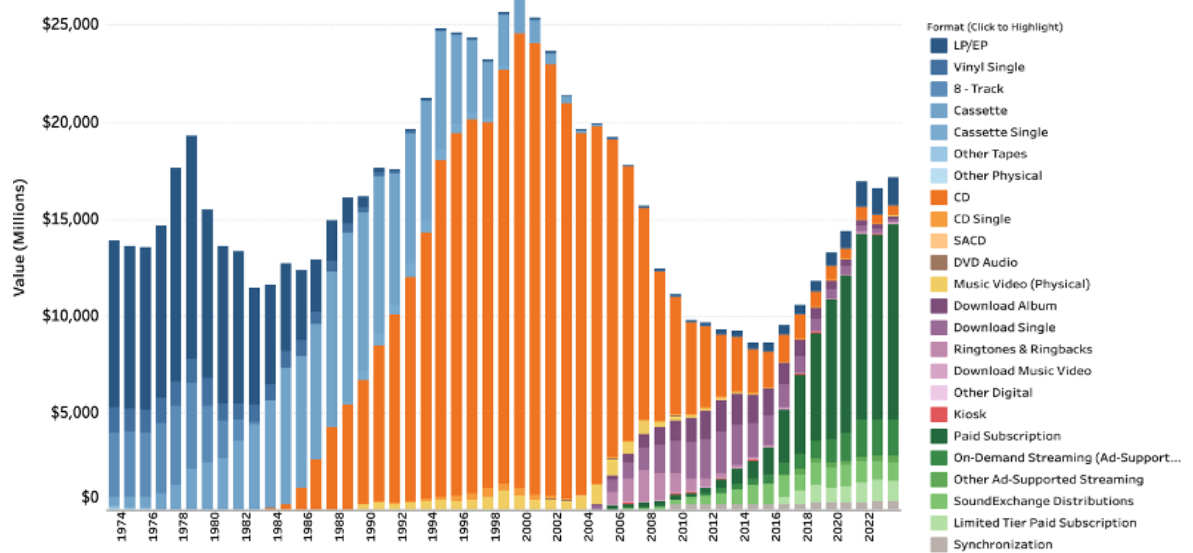
Even though digital formats excel at technical and usability dimensions, physical formats have been observed to evoke a sense of nostalgia, personalisation of song selection or authenticity, which can be linked to the emotional value. The emotional value in this comparative framework plays a crucial role in understanding the differences between formats of music, because cultural products, including music (Throsby, 2008, p.150), carry symbolic and emotional significance (Klamer, 2003, p. 33). Consequently, without consideration of the

emotional value, the comparison would paint a paradoxical image (Sarpong et al., 2016, p. 115): digital formats provide maximum convenience at the lowest costs, whereas physical carriers require more knowledge and equipment, which does not necessarily translate into a better quality of sound.

Nowadays, consumers get to choose from a great variety of different formats, which enables them to experience music in accordance with whatever qualities they find most meaningful to them, even when the choice happens to be the most fragile and expensive one - vinyl. This preference can be seen in a slow increase of revenues from vinyl records, which are visible in the information gathered by the Recording Industry Association of America [RIAA] in Figure 1 and Figure 2.

Figure 1

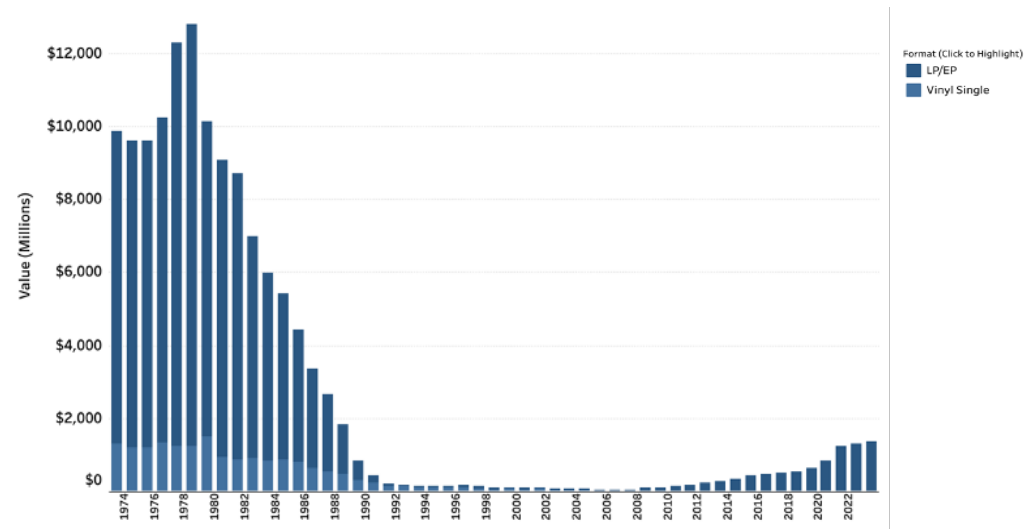
U.S. Recorded Music Revenues by Format, all formats (RIAA)



The drastic changes of the industry due to the emergence of the digital formats to the music market are clearly demonstrated: the blue (vinyl and cassettes) and orange (CDs) columns are observed to drastically shrink from the early 2000s, which also coincides with the peak time of *Napster's* popularity. The comparative framework (Table 1) suggests that CDs offer the most compelling intersection of convenience, affordability, and sound quality, which possibly accounts for the great popularity of this format, yet this format appears to be the most affected by the entrance of the digital formats of music (Figure 1). According to information provided by RIAA, music streaming (presented as green columns), coincides with a drastic drop in CD sales and slow growth in vinyl record sales (Figure 2).

Figure 2

U.S. Recorded Music Revenues by Format, LP/EP and Vinyl Single formats (RIAA)



2.1.2. Vinyl as a cultural commodity

Despite the widespread accessibility and prevalent ease of use of digital formats, the consumers seem to be seeking a new physical experience, and they opt for the one that is seemingly the least convenient and the most expensive. This resurgence can be said to question the idea of vinyl technology as one belonging to the past, and instead it enhances the importance of emotional value of a music carrier (Table 1).

Moreover, in the pursuit of understanding the drive behind the vinyl revival, several empirical studies were conducted that created connections beyond the sense of nostalgia. The vinyl revival can be investigated as the new generation of artists and consumers enjoying vinyl records (Guo, 2023, p. 3), the need for materiality (Remic, 2015, p. 43), or for ritual and authenticity (Bartmanski & Woodward, 2013, p. 19; Whitehouse, 2023, p. 77). The ritualistic nature of vinyl experience has been discussed in terms of invoking “aura” (Guo, 2023, p. 4), a term coined by Walter Benjamin, one of the core thinkers of the Frankfurt School, a neo-Marxist school of philosophy and sociology (Cazeaux, 2011, p. 427). Aura can be understood as a unique presence held by an art object, and its uniqueness makes it irreproducible and thus authentic, as it is inseparable from its space, time and emotional impact (Benjamin, 1936, pp. 433-434 in Cazeaux, 2011; Bartmanski & Woodward, 2013, p. 18). With the rise of industrialisation, the art works have become subjected to mechanical reproduction resulting in multiple perfect copies, which strips away their unique aura (Benjamin, 1936, p. 432 in

Cazeaux, 2011). However, Bartmanski & Woodward (2013, pp. 22-23) reframe the concept of aura of reproducible vinyl records. Despite their reproducibility, the aura of vinyl records is reconstituted by its material and social aspects. Therefore, the aura of vinyl records exists within relations between the scenes, clubs, movements, labels, and cities, and as these material artefacts endure cycles of commodification, the vinyl remains an aurastic object (Bartmanski & Woodward, 2013, pp. 22-23). The concept of aura is utilised in the context of the vinyl revival to highlight the cultural significance of this phenomenon, and to provide a deeper theoretical understanding, that supports the economic analysis.

2.2. Supply of Vinyl – Digitalisation, Industry and Labels

2.2.1. Formats in today's recorded music industry

With the emergence of new technologies, a physical carrier of music seems to have strong substitutes. Digital music has increased accessibility not only to artists but also to audiences, which means people have become able to reach music regardless of the content of their local record shop (Waldfoegel, 2017, p. 208). However, at first, this transformation of music was not beneficial to the recorded music industry, which predominantly profited from sales of the physical carriers (IFPI, 2024, p. 11).

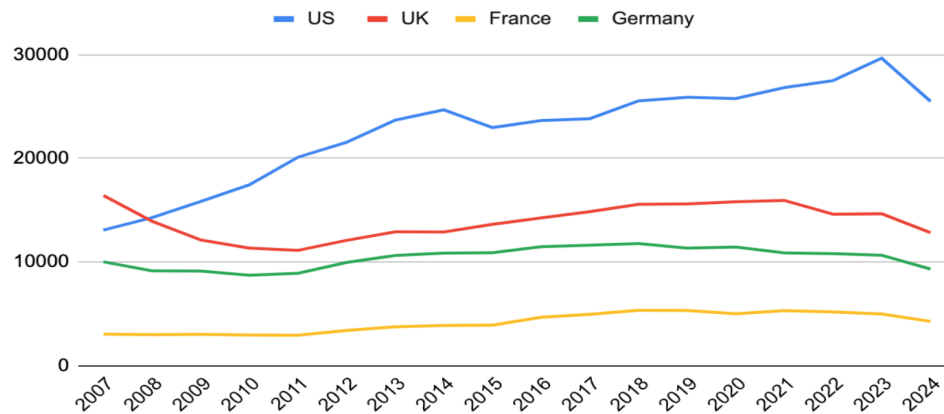
Physical formats do not have the qualities of a public good (non-rivalry and non-excludability), which allows consumers to have their own item, a personal token of appreciation (Ko & Lau, 2015, p. 117), but also makes the access to music easier to control by the industry. The non-rivalry of a good means consumption of a good by an individual does not exclude the other individual from doing so (Wiśniewski, 2013, p. 58), whereas non-excludability refers to a situation where it is difficult or unprofitable to prevent non-buyers from accessing a good once it is provided (White, 2012, p. 340). That being said, digital music does have such characteristics (Byun, 2016, p. 42; Hubbs, 2016, p. 136), which makes it more challenging to monetise. With minimal marginal costs of production (Waldfoegel, 2017, p. 196) and intangible form, digital music can be copied and disseminated with little to no intervention from the industry. The most emblematic platform that has become a symbol of technological disruption, *Napster* in the last 1990s, allowed its users to exchange music with no central control or payment (Daga, 2015, p. 6). The immense scale and speed of *Napster's* popularity illustrate the great challenge for the industry to remain profitable, which further forced the traditional model to adapt.

The traditional model was predominantly generating its revenue from selling physical copies of music (the ownership model). In the pursuit of minimising losses due to piracy, the industry responded in two ways: legal action and technological reconstruction. Having led to the shutdown of *Napster* (Byun, 2016, p. 8; Daga, 2015, p. 13), the industry regained some of its control. Interestingly enough, the industry learnt its lesson and the moment a new streaming technology emerged, it harnessed it, rather than attempting to resist it. Piracy still allows consumers to access music at little to no pecuniary costs, however, there are transaction costs of search, risks of malware or legal consequences that encourage consumers to lean towards a more convenient and legal option - music streaming platforms (Byun, 2016, p. 60). Moreover, this movement of consumers of music streaming “involves listeners accessing a potentially infinite catalogue of contents, either free or for a fee, with music remaining available to them, under certain conditions, as long as they continued to subscribe to the platform’s services” (Bonini & Magaudda, 2024, p. 100). As this infinite catalogue of music is located on one of the major streaming platforms, such as *Spotify*, *Apple Music*, *YouTube Music* or *Amazon Music* (GlobalData, 2024, p. 27), this facilitates more music discovery (Datta et al., 2018, p. 19), which simultaneously benefits the consumers as well as the industry.

Nonetheless, the presence of physical sales ought not to be omitted from the picture of today’s recorded music industry. As mentioned in a previous chapter, consumers still long for tangible music formats, even though they are more costly, require more knowledge and effort. This longing has been especially seen in sales of vinyl records (Bonini & Magaudda, 2024, p. 14). The vinyl revival, from the perspective of the industry, was primarily considered a short-term fad (Kendall, 2017). Nonetheless, it has been quite consistent, as this growth in vinyl sales has been visible over the years, which goes against the idea that all physical formats are to become obsolete due to digital ones (Mall, 2021, p. 73). Furthermore, the growing popularity of vinyl records has encouraged another re-evaluation of the role of physical format. Instead of dismissing it as a short-term nostalgic trend, the industry has decided to strategically harness the vinyl revival, which has been particularly seen in the behaviour of record labels (Mall, 2021, p. 76). Taking into account the biggest 4 Western (U.S., U.K., France, and Germany) music markets, the number of vinyl releases aligns the vinyl revival (Figure 3). The use of this data is meant as an illustration of a general trend within the industry (see Appendix A).

Figure 3

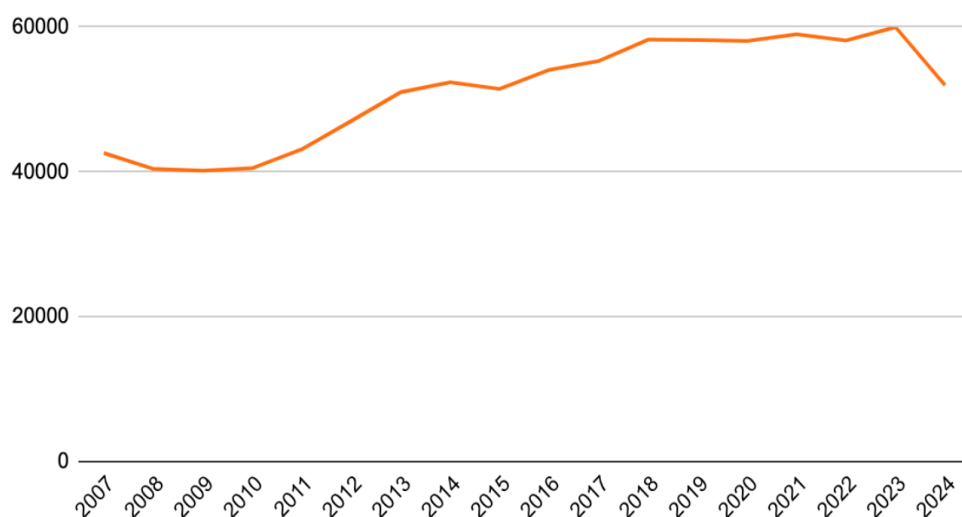
The number of vinyl releases per country, 2007-2024 (source: Discogs API)



The recent decline in 2023 can be linked to data lag, which is a temporary data incompleteness due to delay in registering data from recent years. Continuously, the total number of vinyl releases each year, representing the cumulative efforts of the U.S., U.K., France and Germany, has been growing since 2007 (Figure 4).

Figure 4

Combined vinyl releases from U.S., U.K., France and Germany, 2007-2024 (source: Discogs API)



Therefore, it can be observed that despite the clear lead of music digital formats of music, such as music downloads and music streaming, vinyl records remain relevant and resilient, which is manifested in the growth of vinyl record sales (Figure 2), and the number of vinyl

releases (Figure 4). Interestingly, one of the most popular physical carriers of music, CDs, is facing a drastic decrease in number of releases (Figure 5 and Figure 6), which would suggest that consumers are not interested in any physical format but specifically a vinyl record.

Figure 5

The number of CD releases per country, 2007-2024 (source: Discogs API)

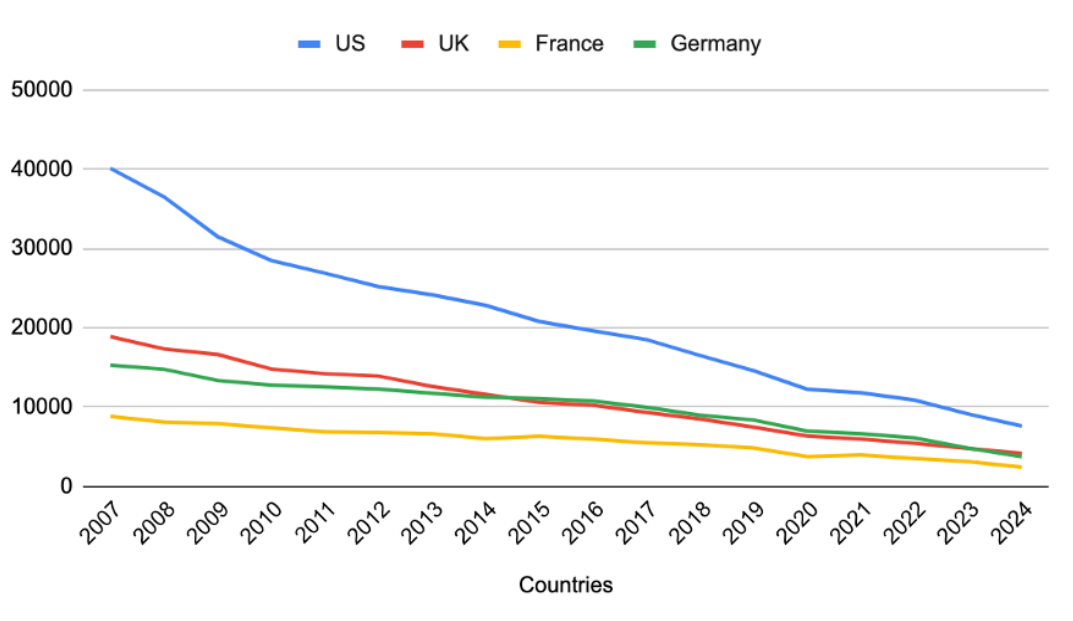
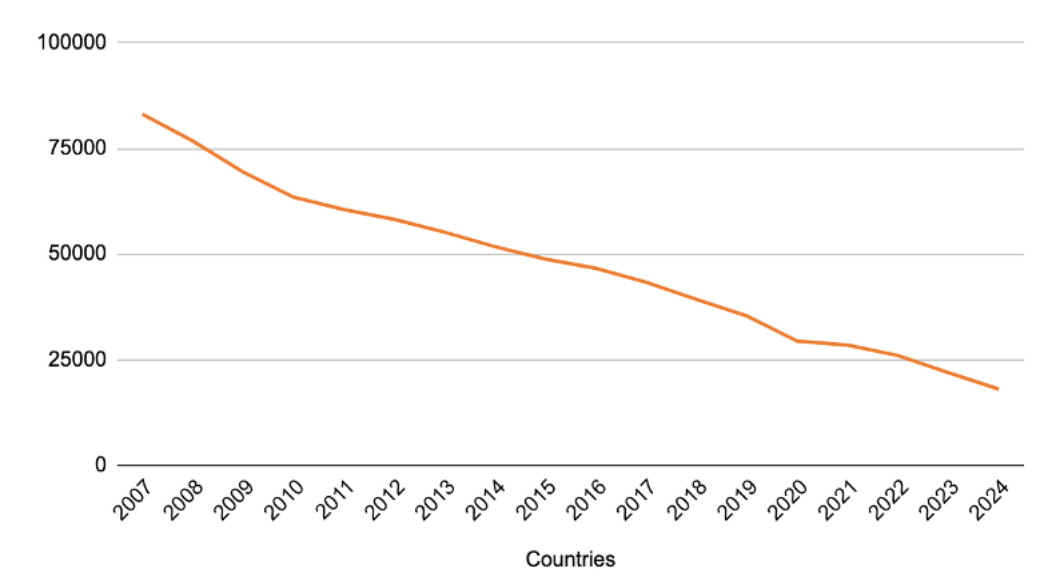


Figure 6

Combined CD releases from U.S., U.K., France and Germany, 2007-2024 (source: Discogs API)



What makes the vinyl revival particularly compelling is its simultaneity with this decline of CDs and the rise of digital music.

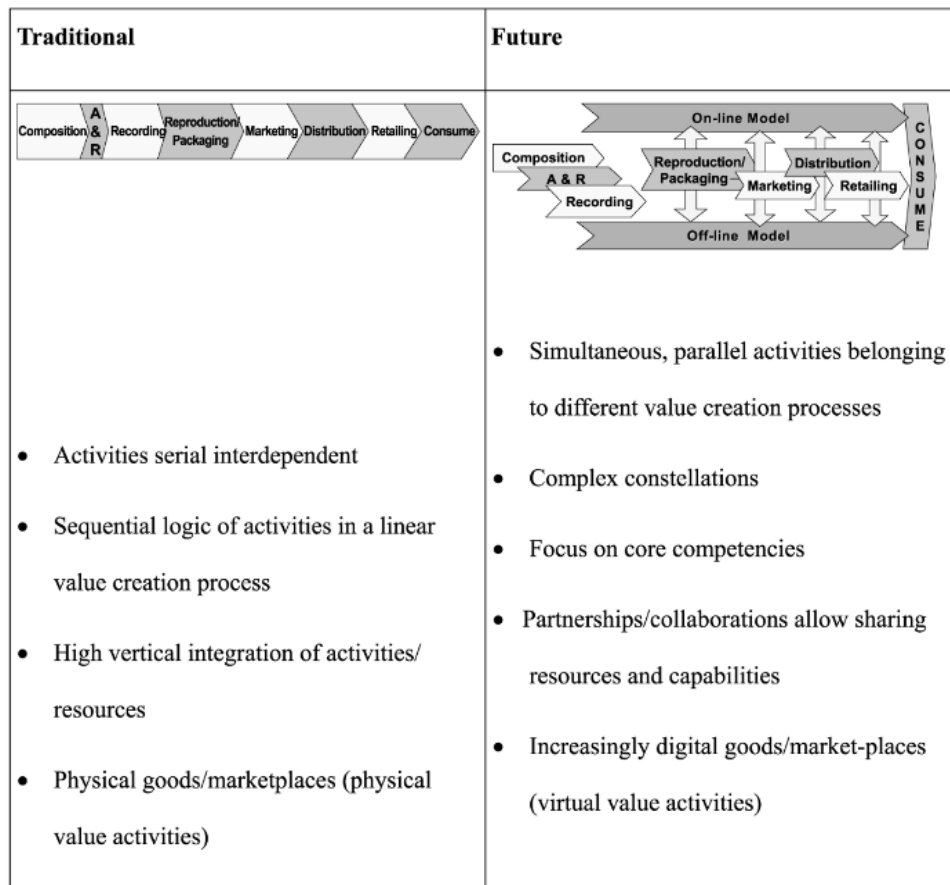
2.2.2. Record labels in the digital age

The recorded music industry encompasses the process of creation of music recordings, which involves various types of companies such as record companies, publishers, retailers, music licensing agencies, streaming platforms, record labels and many more (Ibrahim, 2024, p. 25). However, despite this complex web of different companies providing their services, record labels sit at the intersection of all these other companies and proliferate connections between consumers, artists, and other agents of the industry (Iliev, 2023). Record labels are the key industry players, who “continue to play a crucial role as the leading investors in music” (IFPI, 2024, p. 16). Their position in this web, however, is highly determined by the size of a label and the market power it holds, and that differs greatly taking into account that some labels hold 20% of the global market, whereas some operate on a much smaller, local scale. From an economic standpoint, record labels can be categorised as humdrum firms that provide artists with resources such as production, distribution, marketing in the form of industry executives and equipment, which are specialise in releasing music on the market (Towse, 2010, p. 390; IFPI, 2024, p. 16, Graham et al., 2004, p. 1087; Waldfogel, 2017, p. 198). The process of making a recording is difficult in both technical (it requires specialised technical skills and complex equipment) and economical terms (the tastes of consumers are unpredictable, and it is troublesome to match artists with the right audiences), which solidifies the central position of record labels in the industry.

Considering this strong position at the intersection, and recent mergers of the biggest companies, labels have been discussed to also play a role of market intermediaries who control what music is available on the market (Bishop, 2003, p. 161 in Bishop, 2006, p. 445; Waldfogel, 2017, p. 196). Nonetheless, with the emergence of digitalisation of music, the power of record labels has been contested. As mentioned above (Section 2.2.1.), the industry profited from the physical sales, and that included the functioning of the record labels. Record labels initially resisted the changes and advances brought by digitalisation, because they considered it as a threat (e.g. piracy) to their status quo business model (Graham et al. 2004, p. 1087; Bishop, 2006, p. 444). That has led further to the creation of the new model that allows for incorporation of digital formats as a new source of revenue (Figure 7).

Figure 7

The structure of activities (Graham et al., 2004, p. 1092)



The structure of activities, conceptualised by Graham et al. (Figure 7), demonstrates the difference between a traditional model of music production and distribution, which can be characterised by its linearity, and a future one. The latter has emerged with the Internet permeating media, and thus transforming the structure of the industry. In the future model, record labels accommodate digital formats through adding the new on-line model to their structure. Nonetheless, this model proposed by Graham et al. (2004, p. 1092) needs to be taken as a major simplification, and it is presented as a part of the argument of changing the structure of the industry due to the emergence of digital technologies.

With the fast increase of revenues generated by the digital formats of music (IFPI, 2024, p. 11), it becomes clear that labels, and the other actors within the industry, have managed to adapt. New technologies have become an even better tool to generate revenue than sales of physical copies, as digital music decreases costs of production, distribution and promotion (Benner & Waldfogel, 2016, p. 133; Macy, 2013 in Ibrahim, 2024, p. 214), and the overwhelming number of new entrants makes it even more difficult to achieve success as

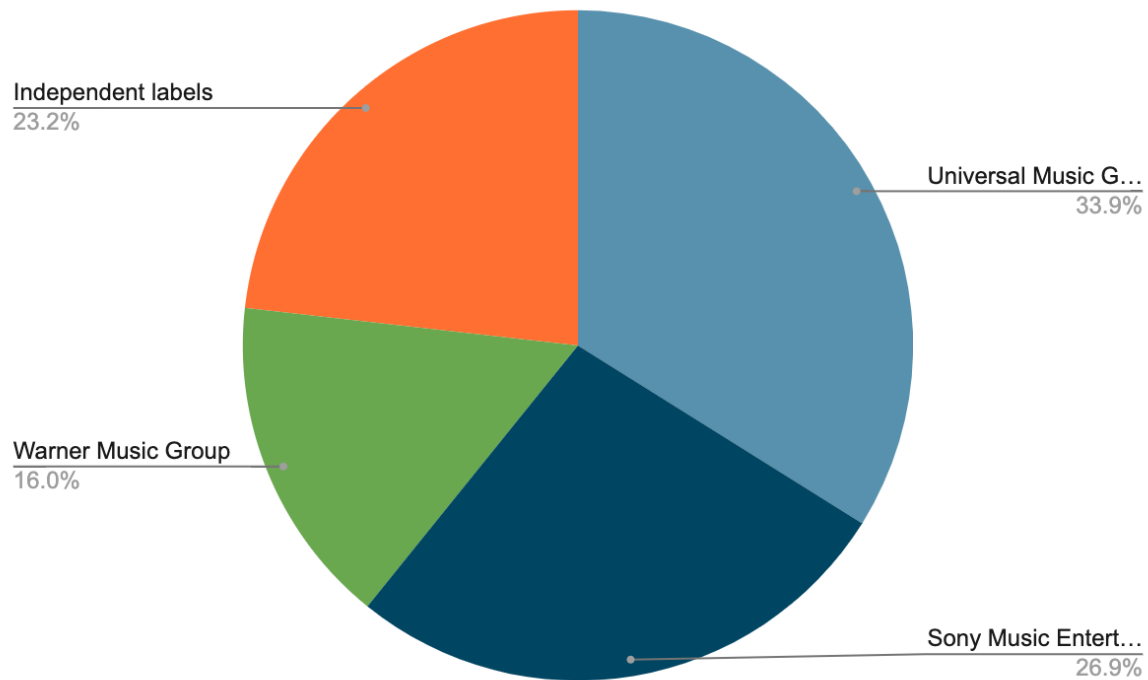
a recording artist. Even with the lowered costs of production and distribution (Waldfoegel, 2017, p. 196), new entrants need to face high levels of uncertainty and competition (Hracs, 2012, p. 443). With the overwhelming music abundance and limited human attention, the guidance and resources of record labels are needed more than ever.

Furthermore, with the major changes of the industry, record labels also needed to adjust their strategies accordingly to the new circumstances. This ought not to be interpreted as total reliance on digital music, but as the emergence of new strategic approach – harnessing revenues from diverse sources, from digital platforms to physical venues (Ibrahim, 2024, pp. 17-18). The emergence of the 360° contracts, which were primarily a reaction to piracy, allow record labels to permeate every revenue area of their artists' careers (Byun, 2016, pp. 84-85). Such contracts indicate a new strategic approach of labels – a holistic whole-rounded strategy, rather than a singular focus (Galuszka & Wyrzykowska, 2015, p. 30). Continuously, since record labels branch out to all different sources of revenue, physical formats have been never fully abandoned, rather their presence constitutes a new post-digital strategy, which incorporates them as an extension of the musical experience, particularly in case of vinyl records (Palm, 2017, p. 11).

Record labels aim to leverage their position on the music market with their musical catalogue, however, there are major companies that shape the industry into an oligopoly (Daga, 2015, p. 11; Mall, 2018, p. 445). The oligopolistic structure involves several main firms, major record labels, that dominate over a plethora of smaller sub-labels and independent labels. Major record labels emerged as a result of vertical integration of record companies, publishers, retailers (Donham et al., 2022, p. 161). Through the means of vertical integration, majors control every step of production, distribution, and promotion (Donham et al., 2022, p. 161; Aprikian, 2020, p. 2). Furthermore, this oligopolistic structure makes the entry to the market very difficult, since major record labels amass key networks and resources, and that secures the position of these powerful labels. It has been observed that in the last 20 years, the number of majors has been reduced, from the Big Six to the Big Three (Donham et al., 2022, p. 159), which would indicate the on-going concentration of the market. The Big Three consists of Universal Music Group, Sony Music Entertainment and Warner Music Group. Currently, these three international conglomerates occupy 86% of the market (Figure 8).

Figure 8

Market share among major record labels (source: Rys, 2024)



Operations of major record labels are fuelled by their immense financial assets and strategic collaborations of industry professionals that allow these companies to maintain and further expand their dominance over the market (Macdonald, 2024). Vast operational scale, resources, and widely spread distribution networks facilitate major record labels to administer mass-market operations and exploitation of their extensive catalogues (Aprikan, 2020, p. 22). Therefore, having integrated every step of production, major record labels benefit from the economies of scale – the average total costs of production decreases as the quantity or products increases (Byun, 2016, p. 88). Moreover, the integration is not limited to the agents that offer manufacturing services, as major record labels have been observed to take up the music market by absorbing smaller record labels, which cater for specific musical niches and lack resources to expand (Daga, 2015, p. 12). The oligopolistic environment, continuous market concentration and highly integrated structure of major record labels significantly affect the way music is being released to the consumers. In the pursuit of profit maximisation, major record labels avoid risks and opt for conventional artistic products (Mall, 2018, p. 460). Their releases are meant for an average consumer with little to no prior knowledge on music,

which is demonstrated in strategic placement in curatorial playlists on music streaming platforms (Bonini & Gandini, 2019, p. 9), persuasive marketing (Donham, 2022, pp. 50-51), and leveraging renown artists (Hesmondhalgh, 1996, p. 49-50).

Despite having occupied the majority of the music market, major record labels are not the only ones remaining in the market. Independent labels have carved space for themselves carrying a different vision and approach towards music (van Drijver & Hitters, 2017, p. 18; Vaininen, 2016, p. 9). Independent record labels can be identified not only as non-major (Galuszka, 2009, p. 43), but also by their distinct attitude towards commerce – being profit ambivalent (Mall, 2018, p. 460; Galuszka & Wyrzykowska, 2019, p. 41). It does not mean these companies completely neglect the importance of financial sustainability, however, they are predominantly driven by innovation and catering for niche music tastes (Hesmondhalgh 1997, 1999 in Galuszka & Wyrzykowska, 2015, p. 24).

Independent record labels, similarly, to the major record labels, also needed to adjust to the new structure imposed by the technological advances. However, the approach of independents is different (Palm, 2019, p. 648). Independent record labels, as smaller companies, tend to demonstrate more flexibility, thus responding to changes quicker. Despite having been affected by the decrease of physical sales, these labels strive to preserve their focus on creativity and innovation by opting for independent digital platforms such as *Bandcamp* or *SoundCloud* (Thow, 2023, p. 20). The reason for it predominantly links to control over their pricing and strengthening of the relation with their niche audiences. Moreover, digital tools have resulted in an increase of niches due to low costs of distribution and possibility of forming online music scenes that can be reached and targeted (Galuszka & Wyrzykowska, 2019, pp. 45–46). This way, independent record labels become intermediaries between niche and emerging artists, and their hard-to-reach audiences. This further illustrates a type of a consumer that is targeted: explorative, engaged, informed (Donham et al., 2022, p. 136). For such a profile of a consumer, independent record labels need to prioritise artistic curation and niche orientation, which makes independent labels differ from major labels in terms of their operations, practices and strategies of their releases.

Overall, record labels, both majors and independent, remain relevant to the recorded music industry. Digitalisation has led to the restructuring of the industry, and labels have followed suit. As a result, digital platforms are integrated into their business models, accordingly to their principles and economic goals. However, music is a cultural good, and its success closely links to volatile tastes of consumers, and for this reason record labels need to diversify their revenue streams to ensure financial sustainability and growth. Consequently,

record labels have not abandoned physical sales, since consumers still purchase CDs, cassettes, and vinyl records in particular. Therefore, the vinyl revival ought not to be only analysed as a nostalgia of consumers, but as a profitable trend that record labels actively participate.

2.3. The Role of Vinyl in Record Labels' Strategies

2.3.1. Vinyl as a premium product

Taking into account both the growing revenue generated by record vinyl (Figure 1), and number of vinyl releases (Figure 3), the phenomenon of vinyl revival needs to be recognised as an ongoing trend unfolding on a global scale. The industry has undergone major changes due to digitalisation, and with the incorporation of new technologies, the ways music is produced, distributed and consumers have changed drastically. That being said, the position of a vinyl record differs from what it used to be in the past – a default music carrier, as it exists alongside plethora of different formats.

With the rise of streaming becoming a new default way of listening to music, a vinyl record exists not in an opposition to the digital formats, but as a complementary good (Jansen, 2020, p. 46; Osborne, 2018, p. 201). The complementarity of a vinyl record comes from its physical, analogue nature, that consumers long for and they are not able to satisfy this by immediate intangible music files on music streaming platforms. Moreover, since music streaming is a more convenient option, consumers choose it in the long term, whereas vinyl records provide a musical experience, which makes it a short-term option (Jansen, 2020, p. 2). Not only is vinyl record a short-term option (as it becomes too expensive and too inconvenient in the long term), but vinyl records have also been observed to be generally 30%-50% more expensive in relation to other music formats (Bartmanski & Woodward, 2013, p. 7). The higher price results from both higher cost of production and distribution of vinyl records, but also from the cultural value consumers hold. In this perspective, a vinyl record can be considered a premium product. Apart from their higher prices, they are associated with better quality, limited distribution, and rather minimal promotion (Quelch, 1987, p. 39).

2.3.2. Strategic use of vinyl

Given the growing importance and a premium positioning of a vinyl record, record labels have not been indifferent to the vinyl revival trend (Palm, 2017, p. 1). Major and independent record labels have shown in the past their varying ability to adjust to the changes within the industry with the emergence of new digital technologies (Benner & Waldfogel, 2016, p. 130), which might indicate that the vinyl revival is another strategic adaptation they need to take (Daga, 2015, p. 12). However, the incorporation of the vinyl revival into the business strategy is closely linked to a type of a label because of varying resources and types of consumers. Furthermore, major record labels gather enormous resources (Bishop, 2006, p. 443), and thus are able to release big numbers of vinyl records, even though their consumers are more likely to engage with music through mainstream digital platforms. Nonetheless, since streaming and vinyl records have become complementary, it has given major record labels an opening to a new niche market. Through product differentiation and positioning of a vinyl record as a premium product, these labels are able to maximise their profits by expanding the range of their products by adding vinyl records (Aprikian, 2020, p. 60).

Additionally, major record labels tend to have the most prominent artists signed, e.g. superstars (Marshall, 2013, p. 593), who have had a track record of success and therefore the demand for their vinyl records is more reliable. The strategy of releasing vinyl of superstars' music underlines another relevant element of the strategy of major record labels - leveraging the recognition of their biggest artists, while minimising opportunity costs of consumers (Handke, 2010, p. 136). Since major record labels are able to invest their resources in elaborate marketing strategies, it can be argued that their strategies employ a bundle strategy to make a purchase of a premium product even more attractive to the consumers (Donham et al., 2022, p. 466). A bundle entails multiple products packaged together, which in case of vinyl records might be stickers, posters, codes for digital download, booklets. The reason why bundling appeals to consumers, as rational agents, can be linked to pursuit of maximisation of satisfaction (or utility) from their limited income, and as consuming more goods implies more utility, bundles appear highly attractive (Byun, 2016, p. 22). Furthermore, extensive resources of major record labels enable them to release "multiple specific-album-related products such as bonus tracks, compilations, vinyl formats, or album's reprints" (Aprikian, 2020, p. 60), which can be identified as a strategy to enhance engagement with artists, but to also maximise revenues from albums that have been successful in the past.

Independent record labels also incorporate vinyl records as a premium product next to their digital offerings, however, their resources and consumers differ greatly from those of majors. Firstly, independent record labels do not operate with vast resources, which makes them act more carefully while balancing uncertain artistic directions as they might get financially hurt when a failure happens. Pressing and distributing vinyl records is costly, and independent record labels generally work with niche artists, therefore demand for their music is not as reliable (Aprikian, 2020, p. 69). Nonetheless, independent record labels tend to attract knowledgeable and engaged consumers, which appreciate the artistic and niche vision making the releases desirable and meaningful. To balance limited resources and artistic quality, these companies might opt for less costly options in terms of manufacture, 7-inch or 12-inch vinyl records are preferable and minimise costs of marketing since these consumers demonstrate strong loyalty regardless (Hesmondhalgh, 1996, p. 222), and are willing to financially support their niche artists (Palm, 2019, p. 649).

In essence, there exists a big discrepancy between major and independent record labels, and it predominantly shows in their resources. This paper aims to investigate how these two types of labels strategise their vinyl releases, which is grounded in an assumption that major record labels apply more costly strategies, and are more commercially driven, whereas independent record labels aim in niche market while minimising their costs. Moreover, this research also intends to reflect on the relation between labels and digitalisation, as major record labels benefit more from streaming due to the pro-rata system than independent labels and artists (Muikku, 2017, p. 9), which makes them opt for alternative platforms for more control over their digital releases and better pay-outs (Hesmondhalgh et al., 2019, p. 9). Digital presence of these platforms allows them to lower the costs of distribution and promotion, build a connection with their niche audience and further stimulate interest towards their vinyl releases.

3. Methodology

3.1. Choice of method

3.1.1. Research question

The research gap was identified after engagement with existing academic literature, reports of the music industry, and media sources such as blogs and magazines, enabling the research to reflect perspectives of scholars, industry-professionals, consumers, and media. The vinyl revival has been widely discussed in all of those sources, however, there is not much said about how exactly major and independent record labels have reacted to this trend, especially after significant changes of the industry due to digitalisation in the last decade. Therefore, this research is guided by the main research question:

How do independent and major record labels differ in their strategies to incorporate the vinyl revival amidst the ongoing digitisation of the recorded music industry?

Moreover, considering that in the literature there is a stark differentiation between major and independent record labels, it is expected to observe those differences reflected in how vinyl records are released by their respective labels.

3.1.2. Research design

To examine the strategies of major and independent record labels towards the vinyl revival, and therefore provide an answer to the research question, this study adopts a quantitative research strategy. A strategy, which is central to this research, can be approached from many different angles. Even though a qualitative approach would provide in-depth insights, through the quantitative research I aim to develop a detailed description of general tendencies that are typical for major and independent labels in the context of their vinyl releases. Moreover, a quantitative strategy facilitates a systematic examination of patterns, and ultimately yielding generalisable findings about the vinyl market (Bryman, 2016, p. 163).

Continuously, this research applied a repeated cross-sectional design (Bryman, 2016, p. 53), which involved collecting multiple units of analysis at two points in time (2009 and 2023) and creating a comparative framework between those for major and independent record labels. This design facilitates obtaining the comparative analysis of two distinct types of

labels. From the observed industry trends (Figure 3), 2009 marks the lowest point in vinyl releases (total) from the beginning of the vinyl revival trend, from which vinyl records start to gradually reintegrate into the market. Therefore, 2009 is a momentum when the vinyl revival was tentative. Whereas 2023 demonstrates the highest number of vinyl releases (total), simultaneously marking maturity of the vinyl revival as a trend and thus the established position of vinyl records in the market. Lastly, this design allows to examine patterns among variable cases, which are the observed differences of vinyl releases of major and independent record labels (Bryman, 2016, p. 53).

For the research method, quantitative content analysis was applied. The vinyl releases are analysed according to their features, which are registered in a systemic manner (Bryman, 2016, p. 282). Through observing which features occur and at what frequencies across vinyl releases of major and independent labels in 2009 and 2023, it is feasible to delineate what type of strategies labels use. Appendix B provides a detailed scheme on how features were coded.

3.2. Operationalisation

3.2.1. Strategies - Dependent variables

In this research, a strategy is defined as a set of decisions made by the label executives, which reflect the logic of a label, and thus can be used to investigate how these labels act towards the vinyl revival. The observable features of vinyl releases were applied to measure those strategies as several dependent variables. Moreover, the choice of dependent variables was inspired by the partial conjoint analysis (Table 1). Insights from the partial conjoint analysis were valuable for the operationalisation because they facilitate creating variables in relation to the attributes of vinyl records that consumers deem important.

Dependent variables were put into three groups: consumer reach (popularity of an artist, digital presence on major platforms, digital presence of alternative platforms, genre), intrinsic attributes of a record to assess physical characteristics of a release (number of tracks and format), and strategic positioning (product differentiation, bundle strategy, special features, product variation, exclusivity, median price). The reason for including a median price comes from lack of information on average price, and it is the closest available value. Otherwise, the chosen source of data, *Discogs*, presents Low and High, which indicate prices

of the same releases from both ends, and those values are not preferred in a context of this research. Table 2 indicates how each variable was measured.

Table 2

Overview of the variables

Group	Variable	Description	Source	Scale
Not applicable (independent)	Type of label (<i>label_type</i>)	Type of a label	Discogs API, <i>Discogs</i>	Ratio (dummy)
Consumer reach (dependent)	Popularity of an artist (<i>pop_art</i>)	Appearance on Billboard (before or in the year of a release)	<i>Billboard</i>	Ratio (dummy)
	Digital presence - major platforms (<i>d_pres_major</i>)	Appearance of a release on at least one major streaming platform	<i>Spotify, Amazon Music, Apple Music, YouTube Music</i>	Ratio (dummy)
	Digital presence - alternative platforms (<i>d_pres_alt</i>)	Appearance of a release on at least one alternative music platform	<i>Bandcamp, Soundcloud</i>	Ratio (dummy)
	Genre* (<i>genre_</i>)	Genre of a release	<i>Discogs</i>	Ratio (dummy)
Intrinsic attributes of a record (dependent)	Number of tracks (<i>nr_track</i>)	Number of tracks in a release	<i>Discogs</i>	Ratio
	Format (<i>format</i>)	Diameter of a vinyl record	<i>Discogs</i>	Ratio
Strategic positioning (dependent)	Product differentiation - physical features* (<i>prod_diff_ph_</i>)	Extra physical features of a release	<i>Discogs</i>	Ratio (dummy)
	Product differentiation - content features* (<i>prod_diff_con_</i>)	Release-specific features	<i>Discogs</i>	Ratio (dummy)

Group	Variable	Description	Source	Scale
	Bundle strategy (<i>bundle_</i>)	Presence of additional products in a release	<i>Discogs</i>	Ratio (dummy)
	Product variation (<i>prod_var</i>)	Number of variations of a release	<i>Discogs</i>	Ratio
	Premium feature (<i>premium</i>)	Exclusivity of a release	<i>Discogs</i>	Ratio (dummy)
	Median price (<i>med_price</i>)	Median retail price of a release (\$)	<i>Discogs</i>	Ratio

Moreover, the following variables - genre, product differentiation - physical features, product differentiation - content features, and bundle strategy - are sets of variables (Table 3). This approach was essential because each of these variables encompass many different categories, which would otherwise take a nominal form. By converting these variables into sets of dummy variables, indicating the presence of a given feature (1) or its absence (0), it was possible to conduct necessary statistical analysis, and thus yielding more detailed results.

Table 3

Sets of dummy variables

Variable	Dummy variable	Description
Genre (<i>genre_</i>)	<i>genre_rock</i>	Genre of a release is rock.
	<i>genre_electronic</i>	Genre of a release is electronic.
	<i>genre_pop</i>	Genre of a release is pop.
	<i>genre_folk</i>	Genre of a release is folk.
	<i>genre_jazz</i>	Genre of a release is jazz.
	<i>genre_funk</i>	Genre of a release is funk.
	<i>genre_classical</i>	Genre of a release is classical.
	<i>genre_hiphop</i>	Genre of a release is hip hop.
	<i>genre_latin</i>	Genre of a release is latin.
	<i>genre_stage</i>	Genre of a release is stage and screen.
	<i>genre_other</i>	Genre of a release is anything else.
Product differentiation - physical features (<i>prod_diff_ph_</i>)	<i>prod_diff_ph_colour</i>	The record has a different colour than black.

Variable	Dummy variable	Description
Product differentiation - content features (<i>prod_diff_con_</i>)	<i>prod_diff_ph_180</i>	The record weights more than 180 grams.
	<i>prod_diff_ph_gate</i>	The record has a gatefold packaging.
	<i>prod_diff_con_soundtrack</i>	The release is a soundtrack.
	<i>prod_diff_con_compilation</i>	The release is a compilation.
	<i>prod_diff_con_live</i>	The release is a live version.
	<i>prod_diff_con_box</i>	The release is a box set.
	<i>prod_diff_con_re</i>	The release is a re-release.
Bundle (<i>bundle_</i>)	<i>prod_diff_con_tour</i>	The release is a tour version.
	<i>bundle_poster</i>	The release has a poster included.
	<i>bundle_digital</i>	The release has a QR code/codes for MP3 download included.
	<i>bundle_other</i>	The release adds any other extra products.

3.2.2 Record labels - Independent variable

Since this research aimed to examine different strategies of major and independent labels, a type of label was used as an independent variable, which took a form of a dummy: major (0) and independent (1). This categorisation of labels is well-established in academic literature, which further demonstrates how companies with different principles and economic goals approach emerging trends with respect to their consumers (Palm, 2019; Daga, 2015; Galuszka & Wyrzykowska, 2015; Ibrahim, 2024).

Despite the wide usage of this categorisation in academic literature, the structure of the recorded music industry is complex and fluid. Major record labels contain many smaller entities and divisions, which might blur the line between major and independent. Therefore, for the purpose of this research, a label is considered a “major” if it has direct or indirect affiliation with one of the Big Three: Universal Music Group, Sony Music Entertainment and Warner Music Group. A direct affiliation entails ownership, e.g. acquisition of AWAL by Sony Music Group (McAllister, 2023). An indirect affiliation is understood as any other relation between a label and a major that can span from distribution, publishing, licensing, copyright services, so any formal relationship. For the purpose of this research, having either direct or indirect affiliations is treated equally as being a subsidiary of a major label. Regardless of the affiliation, subsidiaries get to benefit from the resources of these larger companies. Consequently, labels without such affiliations were categorised as independent.

To conduct this research, a list of sub-labels of major labels was needed. Official websites of Universal, Sony and Warner do not provide a complete list of their sub-labels, which required me to create one from *Discogs*, a comprehensive user-generated database. Each major has a profile on *Discogs* with an extensive list of subsidiaries. However, all subsidiaries are put into one category, and it is not possible to see which one of them are record labels at the first sight. Therefore, to separate record labels from other types of companies, such as distribution, publishing, media, copyright, or labels that became defunct before 2009 (or 2023, if a release of a given label was categorised as from 2023) or had no relevant for this research vinyl releases, a manual verification was conducted. That resulted in compilation of lists of *Selected (labels only)* and *Excluded*. *Excluded* is a group that collects all the subsidiaries, which are not labels and are further excluded, as different companies fall outside the scope of this research (see Appendix C). In essence, a release is categorised as one from a major label when its label is on the list of *Selected (labels only)*. In case of releases categorised as independent, their labels are any label but those from the *Selected (labels only)* and *Excluded* lists.

3.3. Sample and data collection

3.3.1. Sampling procedure

The sample for this research was composed of 400 vinyl releases, which consists of 100 vinyl releases from major labels and 100 vinyl releases from independent labels from 2009 and 2023 (Table 4).

Table 4

Distribution of vinyl releases in a sample, by label type and year

	2009	2023
Vinyl releases by major	100	100
Vinyl releases by independent	100	100

Continuously, the sample was obtained through Discogs API [Application Programming Interface], which provides a structured access to the extensive music database of *Discogs*. The reason why *Discogs* is a primary source of data is because of the extensiveness and

reliability of this platform. *Discogs* is one of the biggest interactive public databases that provides cross-referenced information on releases, artists and labels. Even though it is a user-generated database, *Discogs* guarantees the quality of their information by applying guidelines, and when an incorrect entry is found, members of the community can vote for it to be removed from the page. Currently, there are 18 291 214 catalogued releases on *Discogs*, which creates an extensive body of data. Moreover, *Discogs* has been used previously in academic publications indicating its credibility and usefulness for scholar pursuits (Bogdanov & Serra, 2017; Jadidi et al., 2022).

To access Discogs API, the application needed to be created, which generated necessary for authentication credentials: consumer key and consumer secret. Then, these credentials were incorporated into the code, that was written and executed on an online platform, *Google Colab* (Appendix D). On this platform, I was able to adjust my code to fit needed parameters such as format, year of the release, country of the release, and filtered by previously drafted list of labels to ensure the releases are from major or independent labels. The same procedure was conducted to obtain the data needed for Figure 3, Figure 4, Figure 5 and Figure 6 (Section 2.2.1).

Additionally, the selection of cases creating the sample is limited to the releases produced in the U.S. The reason for focusing on the U.S. market is its representativeness of the current trend of the industry, but also due to manual construction of data it is not feasible to collect sufficient number of cases from different countries. Manual construction of data entails individual screening of each release for its features expressed in dummy variables, which cannot be obtained in an automated way. Consequently, due to the focus on specific features of the releases and attempt of delineating distinct strategies of major and independent record labels, the analysis needed to be conducted on a sample, with a population estimated to be 15849 vinyl (2009) and 29663 (2023) (Appendix A).

3.3.2. Data collection

The first step of data collection was obtaining a list of releases that fit the criteria of this research, which are vinyl releases from the U.S. in 2009 and 2023, categorised by the type of a label, from Discogs API.

The second step required collecting detailed information on each release from a sample. The information was filled manually, from different sources (Table 2). The popularity of an artist (*pop_art*) was collected from *Billboard*, an online music magazine

known for its charts. The information was taken from the artist's individual page, which includes their chart history. From this chart history, it is visible if/when a given artist has had a track featured on any Billboard chart. If the artist had their track featured in or before 2009, then this artist was classified as popular (1), otherwise they were assigned a value 0 for this variable. The same procedure was applied to releases from 2023.

The digital presence on both major platforms (*d_pres_major*) and alternative platforms (*d_pres_alt*) was determined by verifying whether a given release is available on at least one of major streaming platforms (*Spotify*, *Amazon Music*, *Apple Music* or *YouTube Music*) or at least one of alternative music platforms (*Bandcamp* or *Soundcloud*). For a release to be considered as a present, the artist's name, the release title, and the year of the release needed all match with the information on a platform. The presence of the release was marked as 1, and the absence as 0. In this research, there was no differentiation in classification if a release is available on more than one platform.

Lastly, the rest of information was extracted from a profile of a release on *Discogs*. The title and artist name of each release in the sample was put into a search bar of *Discogs*, from which it was observed whether this release has one or several versions. If there is one version of a release, all information can be found on its page. However, if a release has several versions, the release that fits the year and a format needs to be found among other versions. In order to do that, on a page of this release, *Master Release* page, all versions are listed, and through available filters, the desired release could be found. Filters were applied in a following manner: format – Vinyl, country – US, year – 2009 (or 2023). There were cases that despite filters, there were still different versions of the same releases that fit those criteria. In that case, the one that was listed first was picked for the further analysis.

The product variation variable was measured as a number of versions of a given release, which is provided on *Discogs*. This measure comes with its limitations, as it might happen for some releases to have misprinted, unofficial, or duplicated versions, which affects the reliability of a count, however, it remains a strong and practical measurement. The premium feature of a release is noted when there are descriptors such as: Premium, Limited edition, Deluxe edition, Hand-signed edition, Limited to "X" copies.

3.4. Data

The dataset consisted of 400 units, $N = 400$, and each unit represented a vinyl release from the U.S. The sample was stratified by a type of label – major or independent, and by year –

2009 or 2023. Moreover, it is relevant to note that there were 10 releases, which are duplicated, and reason for it is that some releases have several versions that fit the same searching criteria (Vinyl, US, 2009 or 2023, the same label), and the code is not able to distinguish them. The following releases were duplicated: *Diamonds and Dancefloors* by Ava Max (2023), *Everybody Loves Sunshine* by Roy Ayers Ubiquity (2023), *Bangerz* by Miley Cyrus (2023), *But Here We Are* by Foo Fighters (2023), *Utopia* by Travis Scott (2023), *Live at MSG* by Slipknot (2023), *Demos* by Crosby, Still & Nash (2009), *Sainthood* by Tegan and Sara (2009), *Live Songs* by Leonard Cohen (2009) and *The Twilight Saga: New Moon – Original Motion Picture Soundtrack* by Various (2009). All of these releases are from major labels.

Continuously, the descriptive statistics of categorical (dummy) variables revealed the key characteristics of the dataset (Table 5). It indicated that the majority of captured releases were to be found on at least one major music streaming platform ($d_pres_major = 329$). Such a notable number of releases could be initially interpreted as the importance of streaming platforms and digital accessibility and presence of music, which is now supplied in diverse formats spanning from physical to digital formats. Additionally, despite choosing the most popular genres on *Discogs*, there was a clear domination of release classified as rock ($genre_rock = 252$), and there were barely any releases classified as latin ($genre_latin = 2$).

In case of physical features of releases, the coloured vinyls seemed to be particularly popular ($prod_diff_ph_colour = 165$). From the features related to content, the re-release was the most often occurring ($prod_diff_con_re = 91$), which might already suggest a notable trend among vinyl releases of appealing to nostalgia-driven consumers and also leveraging releases that proved to be successful in the past.

Table 5

Characteristics of vinyl releases included in the study – categorical variables

Variable	Frequency
<i>pop_art</i>	156
<i>d_pres_major</i>	329
<i>d_pres_alt</i>	243
<i>genre_rock</i>	252
<i>genre_electronic</i>	60
<i>genre_pop</i>	62
<i>genre_folk</i>	43
<i>genre_jazz</i>	25

Variable	Frequency
<i>genre_funk</i>	30
<i>genre_classical</i>	6
<i>genre_hiphop</i>	38
<i>genre_latin</i>	2
<i>genre_stage</i>	19
<i>genre_other</i>	53
<i>prod_diff_ph_colour</i>	165
<i>prod_diff_ph_180</i>	35
<i>prod_diff_ph_gate</i>	28
<i>prod_diff_con_soundtrack</i>	13
<i>prod_diff_con_compilation</i>	42
<i>prod_diff_con_live</i>	12
<i>prod_diff_con_box</i>	7
<i>prod_diff_con_re</i>	91
<i>prod_diff_con_tour</i>	1
<i>bundle_poster</i>	10
<i>bundle_digital</i>	11
<i>bundle_other</i>	47
<i>premium</i>	106

N = 400

Furthermore, the numerical variables also demonstrated several trends emerging from the sample (Table 6). The reason for a smaller sample in case of *med_price* variable might stem from lack of available information on median price on *Discogs* for a given release, resulting in 54 missing values. Most releases in the sample complied to the standard album format with approximately 11 tracks (Mean = 11.16), however, there were several outliers present with over 100 tracks, which demonstrated the presence of large set boxes including multiple vinyl records and/or CDs. The high variability of number of versions (*prod_var*) might indicate that producing several different versions of the same release has become a widely used strategy – diversification of a product across different formats, colours, covers, special editions. This fragmentation into many parallel versions with the same music content can be referred back to the strategy applied for *BRAT* – a release that aims to appeal to as many different consumer groups as possible, through collectors seeking rarity, causal vinyl buyers and devoted fans.

Table 6*Characteristics of vinyl releases included in the study – numerical variables*

Variable	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>
<i>nr_track</i>	400	1	102	11.16	7.61
<i>format</i>	400	7	12	11.45	1.55
<i>prod_var</i>	400	1	482	23.21	51.26
<i>med_price</i>	346	0.88	268.40	28.89	35.66

3.5. Data analysis

3.5.1. Analysis I: different strategies

The data analysis process was run with the help of statistical software, SPSS, and was divided into two parts. The first part of data analysis intended to identify differences between strategies (operationalised as dependent variables) of major and independent record labels, and in selected two years - 2009 and 2023. Considering the exploratory nature of this research, the inductive approach was applied to uncover the relation between diverse features of vinyl releases and a type of a record label, thus no hypotheses were put to test. The analysis included Chi-Square Test for Independence (for categorical variables) and Two-Sample T-test (for numerical variables).

3.5.2. Analysis II: interdependencies between features of vinyl record

Furthermore, after having finalised the primary analysis, the second part of analysis was meant to explore how features, that were found to have a significant association with the type of a label, interact with each other in one model, and this was achieved by means of Logistic Regression. Adding another step to data analysis allowed for obtaining a more nuanced picture and discovering patterns, which might be omitted by a primary step, and also investigate whether the associations found in previously conducted tests persist. It is important to note that this regression did not aim in providing a predictive model, but it was an attempt of revealing potential patterns among features.

Therefore, the data analysis aimed in combining the comparative and exploratory approaches, that allows for extracting more information from the sample, and thus learn more about the population - vinyl releases in the U.S. market.

4. Results

This research intends to explore the different strategies of two types of labels, major and independent, applied to their vinyl releases, which is analysed in the light of the vinyl revival amidst ongoing digitalisation of the recorded music industry. The following chapter presents the results that are obtained through statistical testing.

To obtain a comprehensive understanding of these strategies, and potential differences between major and independent record labels, the process of data analysis was conducted in three parts. Firstly, the frequency of a given feature of a vinyl record, which in the context of this research is a measure of a strategy of a record label and is in a form of a categorical (dummy) variable was tested for its significance, and for that purpose Chi-Square Test for Independence was applied. Secondly, the features that take the form of a continuous numerical variable were tested with a Two-Sample T-test, which allows for indicating whether the means of these variables were similar between major and independent record labels, making this test an appropriate choice. Lastly, the binary logistical regression was conducted to explore which features, from those found to be statistically significant by previous tests, affect each other in one model.

4.1. Chi-Square tests

The bivariate descriptive statistics are provided in order to demonstrate the distributions of the categorical variables among label types, which is further used in the interpretation of the statistical analysis (Table 7).

Table 7

Bivariate descriptive statistics by label type

Variable	Type of label			
	Major		Independent	
<i>pop_art</i>	147	94.2%	9	5.8%
<i>d_pres_major</i>	188	57.1%	141	42.9%
<i>d_pres_alt</i>	116	47.7%	127	52.3%
<i>genre_rock</i>	122	48.4%	130	51.6%
<i>genre_electronic</i>	26	43.3%	34	56.7%
<i>genre_pop</i>	45	72.6%	17	27.4%
<i>genre_folk</i>	27	62.5%	16	37.2%

Variable	Type of label			
	Major		Independent	
<i>genre_jazz</i>	18	72%	7	28%
<i>genre_funk</i>	24	80%	6	20%
<i>genre_classical</i>	5	83.3%	1	16.7%
<i>genre_hiphop</i>	28	73.7%	10	26.3%
<i>genre_latin</i>	1	50%	1	50%
<i>genre_stage</i>	12	63.2%	7	36.8%
<i>genre_other</i>	33	62.3%	20	37.7%
<i>prod_diff_ph_colour</i>	65	39.4%	100	60.6%
<i>prod_diff_ph_180</i>	29	82.9%	6	17.1%
<i>prod_diff_ph_gate</i>	20	71.4%	8	28.6%
<i>prod_diff_con_soundtrack</i>	8	61.5%	5	38.5%
<i>prod_diff_con_compilation</i>	31	73.8%	11	26.2%
<i>prod_diff_con_live</i>	7	58.3%	5	41.7%
<i>prod_diff_con_box</i>	6	85.7%	1	14.3%
<i>prod_diff_con_re</i>	70	76.9%	21	23.1%
<i>prod_diff_con_tour</i>	0	0%	1	100%
<i>bundle_poster</i>	3	30%	7	70%
<i>bundle_digital</i>	6	54.5%	5	45.5%
<i>bundle_other</i>	29	61.7%	18	38.3%
<i>premium</i>	45	42.5%	61	57.5%

N = 400

Note: Percentages indicate how each variable is distributed across label types.

A closer look at the demonstrated distributions already reveals rather clear strategic differences between releases of major and independent labels. In terms of the genre category, both major and independent labels concentrate on rock (*genre_rock*). However, majors also show more focus genres with a mass appeal, such as pop (*genre_pop*) and hip hop (*genre_hiphop*), and independents seem to be more invested in the genre of electronic (*genre_electronic*). When it comes to the physical features of vinyl releases, majors are observed to be more frequent to release heavyweight records (*prod_diff_ph_180*) with a more elaborate gatefold packaging (*prod_diff_ph_gate*), whereas independents appear more likely to release coloured records (*prod_diff_ph_colour*). Among features related to the content of releases, majors take a lead in compilations (*prod_diff_con_compilation*) and bundles (*bundle_other*).

Such distributions of these features might reflect the differences in financial resources, with majors opting for more costly strategies to reinforce premium quality and independents catering for creating of visually distinctive identity of their releases, while minimising their costs (Table 8).

Table 8

Results of Chi-Square test for Independence

Variable	χ^2 (Pearson Chi-Square)	df	p	Cramér's V
<i>pop_art</i>	200.13	1	<.001****	.71
<i>d_pres_major</i>	37.83	1	<.001****	.31
<i>d_pres_alt</i>	1.27	1	.26	.06
<i>genre_rock</i>	0.69	1	.407	.04
<i>genre_electronic</i>	1.26	1	.263	.06
<i>genre_pop</i>	14.97	1	<.001****	.19
<i>genre_folk</i>	3.15	1	.076*	.09
<i>genre_jazz</i>	5.16	1	.023**	.11
<i>genre_funk</i>	11.68	1	<.001****	.17
<i>genre_classical</i>	2.71	1	.100	.08
<i>genre_hiphop</i>	9.42	1	.002***	.15
<i>genre_latin</i>	0	1	1	.0
<i>genre_stage</i>	1.38	1	.240	.06
<i>genre_other</i>	3.68	1	.055*	.1
<i>prod_diff_ph_colour</i>	12.64	1	<.001****	.18
<i>prod_diff_ph_180</i>	16.56	1	<.001****	.2
<i>prod_diff_ph_gate</i>	5.53	1	.019**	.12
<i>prod_diff_con_soundtrack</i>	0.72	1	.398	.04
<i>prod_diff_con_compilation</i>	10.64	1	.001***	.16
<i>prod_diff_con_live</i>	0.34	1	.558	.03
<i>prod_diff_con_box</i>	3.64	1	.057*	.1
<i>prod_diff_con_re</i>	34.16	1	<.001****	.29
<i>prod_diff_con_tour</i>	1.00	1	.317	.05
<i>bundle_poster</i>	1.64	1	.200	.06
<i>bundle_digital</i>	0.09	1	.760	.02
<i>bundle_other</i>	2.92	1	.088*	.09
<i>premium</i>	3.29	1	.070*	.09

* $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$

4.1.1. Consumer reach

The consumer reach category consists of the following variables: popularity of an artist (*pop_art*), digital presence - major platforms (*d_pres_major*), digital presence - alternative platforms (*d_pres_alt*), and the set of 11 dummy variables representing genres (*genre_*).

A significant association has been observed between popularity of an artist and a type of a label, $\chi^2(1, N = 400) = 200.13, p = <.001$, with a strong effect, $V = .71$. Popular artists occur much more often in releases of major labels (92.4%) suggesting that issuing well-known artists is a strategy strongly adopted by such labels. Another widely used strategy used by major labels (57.1%) is ensuring their releases are both available on vinyl format and on major streaming platforms indicated by a moderate significant association, $\chi^2(1, N = 400) = 37.83, p = <.001, V = .31$.

Furthermore, major labels were found to be more likely to issue vinyl releases of following genres: pop, $\chi^2(1, N = 400) = 14.97, p = <.001, V = .19$, jazz, $\chi^2(1, N = 400) = 5.16, p = .023, V = .11$, funk, $\chi^2(1, N = 400) = 11.68, p = <.001, V = .17$, and hip hop, $\chi^2(1, N = 400) = 9.42, p = .002, V = .15$. All of these associations are considered weak.

4.1.2. Strategic positioning

Within the group of the strategic positioning variables, there are three variables: product differentiation - physical features, product differentiation - content features, and bundle. It is important to note that every variable in this group is a set of dummy variables.

From the variables that measure the frequency of specific physical features of vinyl releases, the feature of coloured vinyl has been found to have a weak association with independent labels (60.6%), $\chi^2(1, N = 400) = 12.64, p = <.001, V = .18$. Whereas two other features have been observed to have weak associations with major labels, being 180+ gram record, $\chi^2(1, N = 400) = 16.56, p = <.001, V = .20$, and gatefold, $\chi^2(1, N = 400) = 5.53, p = .019, V = .12$. Moreover, two features regarding content have weak but significant association with major labels, namely compilation, $\chi^2(1, N = 400) = 10.64, p = .001, V = .16$, and re-release, $\chi^2(1, N = 400) = 34.16, p = <.001, V = .29$.

4.2. Two-sample t-test

The two-sample t-test has been conducted to examine whether there are significant differences between the means of two groups (Table 9).

The results reveal that vinyl releases from major labels contain more tracks ($M = 13.01$, $SD = 9.00$), then those of independent labels ($M = 9.30$, $SD = 5.32$), suggesting that featuring more tracks on a release is a strategy of major labels to increase the perceived value of their product through maximising music content on a record, $t(398) = 5.02$, $p < .001$, 95% CI [2.26 – 5.16]. Furthermore, vinyl release have been observed to be consistently more expensive ($M = 36.51$, $SD = 43.11$) compared to the pricing of independent labels ($M = 20.04$, $SD = 21.20$), which can be linked with the previous finding of featuring more music content on vinyl releases, and higher price might be more justifiable in the eyes of consumers, $t(278) = 4.60$, $p < .001$, 95% CI [9.42 – 23.51].

Moreover, the format of a release has been observed to be greater for the major record labels' releases, ($M = 11.85$, $SD = 0.86$), than releases of independent record labels ($M = 11.06$, $SD = 1.95$), $t(273) = 5.29$, $p < .001$, 95% CI [0.50 – 1.09]. Vinyl releases of major record labels also have been observed to have more registered versions ($M = 40.69$, $SD = 67.87$), than it is in case of vinyl releases of independent labels ($M = 5.73$, $SD = 6.92$), $t(203) = 7.25$, $p < .001$, 95% CI [25.45 – 44.47]. The consistently higher scores of releases of major labels might initially point towards a strategic emphasis on larger and more varied products, standardised formats and premium pricing reflecting extensive resources of major labels, and their commercial orientation.

Table 9

Results of Independent Samples T-test: numerical variables

	Major		Independent		<i>df</i>	<i>t</i>	<i>p</i>	95% CI for Mean Difference	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				Lower	Upper
<i>nr_track</i>	13.01	9.00	9.30	5.32	398	5.02	<.001 ****	2.26	5.16
<i>format</i>	11.85	0.86	11.06	1.95	273	5.29	<.001 ****	0.50	1.09
<i>prod_var</i>	40.69	67.87	5.73	6.92	203	7.25	<.001 ****	25.45	44.47
<i>med_price</i>	36.51	43.11	20.04	21.20	278	4.60	<.001 ****	9.42	23.51

* $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$

Note: All variables were tested with equal groups sizes of 200 of major and 200 of independent, except for *med_price*, with 186 of major and 160 of independent.

4.3. Logistical regression

The categorical variable type of a label functions as a dependent variable, and features of vinyl releases as independent variables, which changes the order set in the earlier stages of the research. This procedure was used in this context for the purposes of conducting such a regression, and thus obtaining a statistical model, that allows for further exploration of how different features of vinyl records relate to each other in one model.

The results of the logistical regression indicate that the proposed model is statistically significant, $X^2(15, N = 346) = 291.17, p = <.001$, suggesting that the combination of features, which were found to be statistically significant in previously presented tests (Table 8 and Table 9), demonstrate relevant patterns when put in one model (Table 10). Moreover, the model accounts for a substantial portion of the variance, Nagelkerke $R^2 = .76$. The overall percentage demonstrates that the model correctly classifies 88.2% of vinyl releases based on the significant features, demonstrating that specific features align more with either a major label type or an independent label type, which can be further interpreted as their distinctive strategies.

Table 10

Results of logistic regression: associations between type of label as a dependent variable) and features of vinyl releases as independent variables (including med_price)

Variable	<i>b</i>	<i>SE</i>	<i>Wald</i>	<i>df</i>	<i>OR</i>	<i>p</i>
<i>pop_art</i>	-3.89	0.49	62.88	1	0.02	<.001****
<i>d_pres_major</i>	-0.99	0.59	2.82	1	0.37	.093
<i>genre_pop</i>	-1.44	0.55	6.91	1	0.24	.009***
<i>genre_jazz</i>	0.47	0.78	0.03	1	1.59	.548
<i>genre_funk</i>	0.13	0.79	0.03	1	1.13	.875
<i>genre_hiphop</i>	-0.43	0.67	0.42	1	0.65	.518
<i>nr_track</i>	-0.09	0.04	5.65	1	0.91	.017**
<i>format</i>	-0.04	0.15	0.06	1	0.97	.814
<i>prod_diff_ph_colour</i>	1.62	0.44	13.29	1	5.03	<.001****
<i>prod_diff_ph_180</i>	-0.20	0.79	0.07	1	0.82	.799
<i>prod_diff_ph_gatefold</i>	0.59	0.74	0.65	1	1.81	.421
<i>prod_diff_con_compilation</i>	-2.56	0.59	18.34	1	0.08	<.001****
<i>prod_diff_con_re</i>	0.18	0.58	0.10	1	1.20	.750
<i>prod_var</i>	-0.07	0.02	11.96	1	0.93	<.001****

Variable	<i>b</i>	<i>SE</i>	<i>Wald</i>	<i>df</i>	<i>OR</i>	<i>p</i>
<i>med_price</i>	0.00	0.01	0.03	1	1.00	.865
Constant	4.08	1.58	6.67	1	58.95	.010**

* $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$

Important to note is that for 54 releases the information of their price was not available on *Discogs*, therefore the analysis included 346 cases. To ensure this did not affect the model in a negative way, I conducted the regression including and excluding the median price in the model (Table 11). This model is observed to also be statistically significant, $X^2(14, N = 400) = 341.19, p = <.001$, is able to correctly classify 89.5% of releases based on the included features, and to capture 77% of the variance within the results, Nagelkerke $R^2 = .77$.

Table 11

Results of logistic regression: associations between type of label as a dependent variable) and features of vinyl releases as independent variables (excluding med_price)

Variable	<i>b</i>	<i>SE</i>	<i>Wald</i>	<i>df</i>	<i>OR</i>	<i>p</i>
<i>pop_art</i>	-3.91	0.45	74.75	1	0.02	<.001****
<i>d_pres_major</i>	-0.99	0.58	3.33	1	0.37	.068
<i>genre_pop</i>	-0.93	0.49	3.49	1	0.39	.062***
<i>genre_jazz</i>	0.22	0.77	0.09	1	1.25	.771
<i>genre_funk</i>	-0.03	0.79	0.00	1	0.97	.970
<i>genre_hiphop</i>	-0.45	0.61	0.54	1	0.64	.464
<i>nr_track</i>	-0.09	0.04	5.73	1	0.92	.017**
<i>format</i>	0.02	0.14	0.03	1	1.02	.872
<i>prod_diff_ph_colour</i>	1.52	0.42	12.99	1	4.51	<.001****
<i>prod_diff_ph_180</i>	-0.32	0.77	0.17	1	0.73	.680
<i>prod_diff_ph_gatefold</i>	0.45	0.73	0.39	1	1.57	.534
<i>prod_diff_con_compilation</i>	-2.55	0.57	19.83	1	0.08	<.001****
<i>prod_diff_con_re</i>	0.09	0.56	0.03	1	1.09	.867
<i>prod_var</i>	-0.08	0.02	15.59	1	0.93	<.001****
Constant	3.59	1.52	5.63	1	36.49	.018**

* $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$

As it is demonstrated above, the values of these two models do not differ greatly, and both of them indicate the same variables to have significant and similar impacts on the

independent variable. Therefore, the further analysis uses the results generated by the regression including the price variable (*med_price*). Observing how different features act in one model, there are four variables that were found significant in the regression: popularity of an artist (*pop_art*), $b = -3.89$, Wald = 62.88, $p < .001$, 95% CI[0.01-0.05], genre pop (*genre_pop*), $b = -1.44$, Wald = 6.91, $p = .009$, 95% CI[0.08-0.69], number of tracks (*nr_track*), $b = -0.09$, Wald = 5.65, $p = .017$, 95% CI[0.84-11.01], product differentiation - physical features: coloured vinyl (*prod_diff_ph_colour*), $b = 1.62$, Wald = 13.29, $p < .001$, 95% CI[2.11-11.97], product differentiation - content features: compilation (*prod_diff_con_compilation*), $b = -2.56$, Wald = 18.34, $p < .001$, 95% CI[0.02-0.25], and product variation (*prod_var*), $b = -0.07$, Wald = 11.96, $p < .001$, 95% CI[0.89-0.97]. The interplay in the proposed model between variables that were found significant are expressed in a following formula:

$$\log\left(\frac{p}{1-p}\right) = 3.59 - 3.89(pop_art) - 1.44(genre_pop) - 0.09(nr_track) + 1.62(prod_diff_ph_colour) - 2.56(prod_diff_con_compilation) - 0.07(prod_var)$$

The formula demonstrates the underlying associations among different features, and moreover they are consistent with the results of the Chi Square and T-tests.

5. Discussion

At the very heart of this research is the vinyl revival, a phenomenon, which in the context of digitalisation, can initially appear as irrational. Through the comparison of different music carriers (Table 1), a vinyl record seems to be the most demanding due to its bulkiness, fragility, or cost of necessary equipment to be able to play it. From a purely functional and economical reason, it might even seem counterintuitive, especially in the light of progressing digitalisation of the recorded music industry that offers digital music – convenient, more affordable, and easier to use. However, the vinyl revival suggests that consumers are driven not only by the convenience or pricing, but also by cultural value and emotional impact.

On the other side of this coin is the stance of the music industry towards this growing trend, since vinyl records slowly leave the category of being a niche product, and become a recognisable part of the mainstream culture, and, as this research indicates, a part of label strategy. Relevant academic literature on the recorded music industry shows that there is a stark division between major and independent labels, which, as suggested by this research, manifests also in their different strategies towards vinyl releases. This research was an attempt to investigate empirically how these strategic differences are expressed in diverse features of vinyl releases, so the vinyl revival can be also analysed as a part of the industry, not only an expression of nostalgia. The purpose of this chapter goes beyond stating the obvious, but it means to highlight the unusual and surprising findings.

5.1. The obvious – majors play it safe

Through the exploration of various features, it can be concluded that major and independent labels, indeed, apply different strategies towards the vinyl revival, which might not seem surprising considering how fundamentally different these companies are (van Drijver & Hitters, 2017, p. 21; Mall, 2018, p. 449). Moreover, the results obtained through the means of statistical analysis, that were previously grounded in academic literature, indicate that some features of vinyl records are to be expected more from major record labels, than it is from independent ones. Accounting for a strong commercial orientation of major labels (Benner & Waldfogel, 2016, p. 129), it is not particularly unexpected to observe vinyl releases of these labels demonstrating features that fit into this orientation.

When all significant features are combined in one model, there is one distinctive feature that seems to have the greatest impact in the equation: popularity of an artist. Vinyl releases on major labels, being predominantly authored by popular, well-established artists,

appear to reflect a key strategy of such labels (Marshall, 2013, p. 593). Namely, the strategy of incorporating superstars into the catalogue to leverage their recognition and take advantage of demand reliability (Handke, 2010, p. 136; Aprikian, 2020, p. 76). Apart from that, major labels have been found to shape their vinyl releases in a way that aligns with their commercial logic: more standardised formats, higher prices indicating premium quality, more product variability and prioritising typically mainstream genres such as pop or hip hop. Independent labels, on the other hand, might be considered to avoid such genres as a way of differentiation from major labels (van Drijver & Hitters, 2017, p. 21; Aprikian, 2020, p. 76).

With their resources, major record labels can afford pressing multiple specific-album-related products (Aprikian, 2020, p. 60), which is also observed in this study by higher number of versions of an album, and by tendency of issuing compilations. The vast catalogues and demand reliability enable major labels to re-package the familiar in a way that it maintains the primary appeal, and such releases like different versions of the same album can be considered to add symbolic value through legacy, nostalgia, and prestige to appeal for emotionally driven consumers seeking tangible and authentic experience amidst omnipresence of digital music (Bartmanski & Woodward, 2013, p. 14; Palm, 2019, p. 649). Nostalgia, in particular, becomes a driving force behind the vinyl revival, which is manifested in compilations and re-issues of past albums that major labels adopt as their strategies. However, this goes beyond the older generations that were originally raised with vinyl records, as vinyl records have become a new cultural symbol of authenticity and coolness that young people yearn for (Jansen, 2020, p. 38). For this reason, such a strategic use of nostalgia, on both format and content layers, can be linked to major labels.

In case of independent labels, this is not only unfeasible, as it is costly to produce complications and re-releases, but it is also unnecessary, since their consumers tend to demonstrate strong loyalty (Hesmondhalgh, 1996, p. 222), and support (Palm, 2019, p. 649).

5.2. The unusual – independents play with fire

While major labels demonstrate predictable strategies, independent labels seem to strategise around experimentation and deviation. Even though this research explores plenty of different features of vinyl records, only one pattern has been found to be recurring – the creative way of using coloured records. Even though it slightly increases the costs of production (due to different materials), coloured vinyl record are pressed in limited batches, which leads to reduced supply, and consequently turning that release into a collectible and thus driving the

demand and its market value (Discogs, n.d.). The scarcity and aesthetic value of coloured vinyl releases, therefore, might be seen as a tool for independent record labels to make their releases more unique and differentiated, that is not fitting major record labels' strategies prioritising mass appeal and profit maximisation, and thus opting for regular black records.

However, the lack of consistent strategies that can be linked to independent labels does not necessarily indicate a flaw of this research, but it can serve as a reflection of how diversely these labels operate within their localised, niche markets, each with its own conventions and aesthetics. In the pursuit of executing artistic visions, independent labels are supported by their consumers (Hesmondhalgh, 1996, p.222), who are passionate about this specific sound, which overall makes them inelastic, creating loyal consumer base. The sense of authenticity and artistry is key for the substance of independent labels, they need to remain experimental, to play with fire. Therefore, no specific genre, format or content type have been found among vinyl releases of independent labels.

Also, considering that independent labels have rather limited resources in comparison to majors, the choice of strategy is tied to both conventions of a given niche and artistic vision, but also to tight budget, which leads to a great diversity of approaches that these companies opt for. As independent labels focus on niches, they cannot rely on their catalogues, that could generate revenue (Galuszka & Wykrzykowska, 2016, p. 24), they need to be more flexible and responsive to changes of the market. This responsiveness translates into a better relation with digital tools, which allows for saving on distribution and promotion (Waldfoegel, 2017, p. 198; Aprikian, 2020, p. 75). Both major and independent labels make their releases available on these platforms, however, it might not be for the same reasons. The main incentive to put their releases on major streaming platforms for the major labels links to the natural advantage that these platforms give to the bigger, more recognisable artists, which happens through the application of the pro-rata system of pay-outs (Muikku, 2017, p. 9), which put the revenues from subscriptions into one pool and distributes to right holders according to their share of total stream. Since major streaming platforms make use of pro-rata system of pay-outs, independent labels and artists do not have such a strong financial incentive to put their music on these platforms. Therefore, in case of independent labels, which are not able to generate a substantial revenue from such platforms, the opportunity costs of not putting their music there are quite low. In fact, withholding music might even be seen as improving the authenticity, niche status and exclusivity – boosted by a small number of pressing. Their moderate presence on these platforms might be linked to promotional purposes, attempting to attract more listeners, and granting access to their music worldwide.

The premium status of vinyl records might be discussed as to translate differently across major and independent labels. For majors, vinyl records can be given many diverse features that makes them collectible items, and thus creating several versions of the same release. Through higher pricing and exclusive limited editions, major labels present their vinyl release as premium products, premium to their usual products – available on music streaming. Whereas independent labels can be said to maintain this premium status through scarcity of their releases, which is a combination of their artistic principles and reducing costs of pressing larger number of records.

6. Conclusion

What at first felt like a contradiction – *BRAT* released on a vinyl – ended up being my main inspiration for this research and enabled me to capture a compelling image of the recorded music industry. As the industry is mostly fuelled by digital platforms, vinyl format becomes a complementary way of consuming music, focusing on physicality and authenticity.

Particularly, in the case of *BRAT*, a hyper-pop album, deeply rooted in the online culture and its aesthetics, the vinyl release seemed unconventional, yet fans have deeply appreciated it.

The vinyl revival analysed through the lenses of strategic thinking suggests that the music industry resourcefully integrates different formats, since each format has its unique technical, market and emotional values (Table 1). In this research, vinyl records were explored in a connection to the vinyl revival, and to create a following juxtaposition: vinyl records as a way to satisfy the desire for physicality and authenticity, and digital music as a means of convenience and access. The comeback of vinyl records indicates that the value of music in the contemporary market goes beyond efficiency and technological development, and it encompasses cultural value and a more immersive experience, which can be found in a physical record.

Findings suggest that major labels' strategies focus on mass appeal, whereas independent record labels aim to maintain their identity as authentic and profit-ambivalent. Strategies of independent labels circle around scarcity (by very limited number of pressing), personal connection with an artist and enhancing consumer loyalty. However, it is quite challenging to delineate what independent labels do precisely in terms of their strategies, because they function within their own niches, hence a variety of possible tactics. These strategic differences, furthermore, demonstrate that a vinyl record is not only an emblem of nostalgia, but also an object relevant to the new hybrid consumption, which record labels have been actively shaping.

6.1. Limitations

Although this research manages to demonstrate several significant findings, there are limitations that need to be acknowledged.

Discogs appears to be the best available option to conduct quantitative research (due to the immense collection of vinyl entries) on the vinyl revival, however, it is not without flaws. *Discogs* is a vast source of information, which is checked regularly by the

administrators of the page, however it is not certain whether this check fulfils the scrutiny of an academic inquiry. It happens quite often that some entries on the website that are incomplete (which in case of this research was the missing information on price) or might be incorrect. Some of these entries might have been included in the sample and thus diminish the validity of the study. Moreover, the information might slightly change, as prices and alternate versions of releases might be updated in their database over time. Nonetheless, it might be the best available tool to collect data on vinyl releases that is the most up to date with the music market.

Due to lack of resources, the sample needed to be restricted to vinyl releases from the U.S. at two points: 2009 and 2023. This restriction needed to be made, as the data on different features of vinyl releases was collected manually, and this might have affected the results, and exclude market trends in different big music markets, such as France, Germany or the United Kingdom. Also, opting for two years does not allow to observe how labels changed their strategies throughout years. Despite this restriction, this research still yields statistically significant results, which can serve as a basis for further research on strategies of record labels around different carriers of music.

Lastly, this study does not consider artists' influence on vinyl releases, and their role in shaping the final product. There is a different degree of artistic autonomy among labels, which had it been included, might have yielded a more nuanced picture of the vinyl revival.

6.2. Future research

As vinyl revival unfolds in a heavily digitalised industry, this might be the most exciting and pressuring direction to be taken in future research – the interplay between analogue and digital formats of music. Digitalisation allows for many new angles, such as music streaming platforms, digital distribution and promotion, or fan engagement.

Diverse digital platforms offer vast sources of data on the state of the music industry, which opens new ways of research through cross-platform analysis of strategies around vinyl records. *Discogs* has been used in this research, however, platforms such as *Bandcamp*, *Beatport*, *AllMusic* or *MusicBrainz* can be promising to investigate strategies of labels as well. It might be an interesting direction to take as each of these platforms serves a different purpose, and thus the information might be presented differently.

Additionally, a qualitative approach might be useful to learn more about strategies used by record labels. By the in-depth interviews of industry professionals, it can be a promising path to gain insights on decision-making of vinyl production and distribution. This approach could be particularly useful to research independent labels, which function within their specific niche markets.

Since the vinyl revival indicates the longing for physicality of music experience, the investigation of different physical carriers might provide an even better understanding of the particular appeal of vinyl in comparison with CDs or cassettes, or even merchandise. The reason for including merchandise in a potential analysis comes from an assumption that not everyone owning a vinyl record owns a record player, which one might say turns this record into a merchandise item. The longing for a physicality and authenticity of a musical experience is a complex issue, which requires looking into various types of physical objects.

Lastly, the vinyl revival can be considered to be just one of the many parts of one overarching trend – the re-emergence of retro-technologies into the culture led by digitalisation. Digital technologies are not at odds with technologies of the past, but this revival happens because of these new digital tools. As Sarpong et al. (2016) observe “the more the disruptive innovations like the internet boost the overall productivity of the economy, the more room there will be for old-fashioned industries that focus on quality rather than quantity and heritage rather than novelty” (p. 115). Therefore, it is not limited to the vinyl revival, but there are many more revivals to be explored, whether it is analogue photography, vintage fashion or furniture. In the age when everything seems to be at an arm’s reach (or perhaps a *tap*’s reach), one might say that this desire for retro-technologies deeply resonates with human rationality, that embraces emotional fulfilment, connection and need for authenticity.

References

- Aprikian, A. (2020, July 6). Major Record Labels' Strategic Positioning in the Digital Popular Music Market. [Master thesis, Erasmus University Rotterdam]. Erasmus University Thesis Repository. Retrieved from <http://hdl.handle.net/2105/55454>
- Bartmanski, D., & Woodward, I. (2013). The vinyl: The analogue medium in the age of digital reproduction. *Journal of Consumer Culture*, 15(1), 3-27. <https://doi-org.eur.idm.oclc.org/10.1177/1469540513488403>
- Benner, M. J., & Waldfogel, J. (2016). The song remains the same? Technological change and positioning in the recorded music industry. *Strategy Science*, 1(3), 129-147. <https://doi-org.eur.idm.oclc.org/10.1287/stsc.2016.0012>
- Bishop, J. (2006). Building International Empires of Sound: Concentrations of Power and Property in the "Global" Music Market. *Popular Music and Society*, 28(4), pp. 443-471. <https://doi.org/10.1080/03007760500158957>
- Bogdanov, D., & Serra, X. (2017, October). Quantifying Music Trends and Facts Using Editorial Metadata from the Discogs Database. In *ISMIR* (pp. 89-95). <https://archives.ismir.net/ismir2017/paper/000172.pdf>
- Bonini, T., & Gandini, A. (2019). "First Week Is Editorial, Second Week Is Algorithmic": Platform Gatekeepers and the Platformization of Music Curation. *Social Media+ Society*, 5(4). <https://doi-org.eur.idm.oclc.org/10.1177/2056305119880006>
- Bonini, T., & Magaudda, P. (2024). Introduction: How Digital Platforms are Changing Music. In: *Platformed! How Streaming, Algorithms and Artificial Intelligence are Shaping Music Cultures. Pop Music, Culture and Identity*. Palgrave Macmillan, Cham. <https://doi-org.eur.idm.oclc.org/10.1007/978-3-031-43965-0>
- Bryman, A. (2016). *Social Research Methods*. Oxford University Press.
- Byun, C. (2016). *The Economics of the Popular Music Industry: Modelling from Microeconomic Theory and Industrial Organization*. Springer. <https://doi-org.eur.idm.oclc.org/10.1177/2056305119880006>
- Canon : Canon Technology | Canon Science Lab | CDs and DVDs. (n.d.). Canon Global. https://global.canon/en/technology/s_lab/light/003/06.html#:~:text=CDs%20are%20made%20up%20of,a%20thin%2C%20protective%20acrylic%20layer
- Cazeaux, C. (2011). *The Continental Aesthetics Reader* (2nd ed.). Routledge.
- Charli XCX | Official Store. (n.d.). Retrieved 13 May 2025, from <https://store.uk.charlixcx.com/>

- Daga, B. (2015, June 8). The impact Of Digitization On Product Innovation In The Recorded Music Industry. [Master thesis, Erasmus University Rotterdam]. Erasmus University Thesis Repository. <https://hdl.handle.net/2105/32694>
- Datta, H., Knox, G., & Bronnenberg, B. J. (2018). Changing their tune: How consumers' adoption of online streaming affects music consumption and discovery. *Marketing Science*, 37(1), 5-21. <https://doi-org.eur.idm.oclc.org/10.1287/mksc.2017.1051>
- den Drijver, R., & Hitters, E. (2017). The business of DIY. Characteristics, motives and ideologies of micro-independent record labels. *Cadernos de arte e antropologia*, 6(1), 17-35. <https://doi.org/10.4000/cadernosaa.1192>
- Discogs—Base de Données musicale et Marketplace. (n.d.). Retrieved 1 March 2025, from https://www.discogs.com/?gad_source=1&gad_campaignid=21524795402&gbraid=0AAAAADmy1_rpHgkS1sK-q710we3PORzqg&gclid=CjwKCAjw24vBBhABEiwANFG7y5Cn9Y_YGt1F8p4j9hQYU3Wg8cSFjwo1BtlVA2TQYWQ3gD2k28Lx5BoCnswQAvD_BwE
- Donham, T., Macy, A. S., & Rolston, C. P. (2022). *Marketing recorded music: How Music Companies Brand and Market Artists* (4th ed.). Routledge.
- Galuszka, P. (2009). Attitudes of Polish record labels towards the digital music market. *Economics and Organization of Enterprise*, 4(2), 37–51. <https://doi.org/10.2478/v10061-009-0019-0>
- Galuszka, P., & Wyrzykowska, K. M. (2015). Running a record label when records don't sell anymore: empirical evidence from Poland. *Popular Music*, 35(1), 23–40. <https://doi.org/10.1017/s0261143015000811>
- Galuszka, P., & Wyrzykowska, K.M. (2019). Rethinking Independence: What Does 'Independent Record Label' Mean Today?. In E. Mazierska, L. Gillon & T. Rigg (Ed.). *Popular Music in the Post-Digital Age: Politics, Economy, Culture and Technology* (pp. 33–50). New York: Bloomsbury Academic. <http://dx.doi.org/10.5040/9781501338403.ch-001>
- GlobalData. (2024, June). GlobalData Industry Profile: Global Online Music Streaming. [Online]. Retrieved from <https://explorer-globaldata-com.eur.idm.oclc.org/Analysis/details/global-online-music-streaming-gdx>
- Graham, G., Burnes, B., Lewis, G. J., & Langer, J. (2004). The transformation of the music industry supply chain: A major label perspective. *International Journal of Operations & Production Management*, 24(11), 1087-1103. <https://doi.org/10.1108/01443570410563241>
- Guo, Y. (2023). The Comeback of the Medium: The History and Contemporary Revival of the Vinyl Record Industry. *SHS Web of Conferences* (Vol. 155, article number: 02015). SHS Web of Conferences. <https://doi.org/10.1051/shsconf/202315502015>

- Handke, C. (2010). The Creative Destruction of Copyright - Innovation in the Record Industry and Digital Copying. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.1630343>
- Hesmondhalgh, D. (1996, July). Independent record companies and democratisation in the popular music industry. [Doctoral dissertation, University of London]. Academia.edu. https://www.academia.edu/27103610/PhD_thesis_1996_Independent_Record_Companies_and_Democratisation_in_the_Popular_Music_Industry
- Hesmondhalgh, D., Jones, E., & Rauh, A. (2019). SoundCloud and Bandcamp as Alternative Music Platforms. *Social Media + Society*, 5(4), 1-13. <https://doi-org.eur.idm.oclc.org/10.1177/2056305119883429>
- Hodgson, T. (2021). Spotify and the democratisation of music. *Popular Music*, 40(1), pp. 1-17. <https://doi.org/10.1017/S0261143021000064>
- Home—Discogs API Documentation. (n.d.). Retrieved 11 May 2025, from https://www.discogs.com/developers?gad_source=1&gad_campaignid=22347947751&gbraid=0AAAAADmy1_qpEyjvmb0VZimvddqitmMC9&gclid=CjwKCAjw24vBBhABEiwANFG7ywi8HUhUQ1JDXy5yINZs98y0MsKEcHM54IHuXWVcMuORWU3zbmo2YBoCVZkQAvD_BwE
- Gracy, B. J. (2012). A Creative Industry in Transition: The Rise of Digitally Driven Independent Music Production. *Growth and Change*, 43(3), 442-461. <https://doi-org.eur.idm.oclc.org/10.1111/j.1468-2257.2012.00593.x>
- Hubbs, G. (2016). Digital Music and Public Goods. In: Purcell, R., Randall, R. (eds) 21st Century Perspectives on Music, Technology, and Culture. Pop Music, Culture and Identity. Palgrave Macmillan, London. https://doi-org.eur.idm.oclc.org/10.1057/9781137497604_9
- Ibrahim, R. (2024, April). *Major Labels in the Digital Era: Exploring Business Strategies in a Changing Market*. [Doctoral dissertation, University of Technology Sydney]. Open Publications of UTS Scholars. <http://hdl.handle.net/10453/179593>
- Iliev, N. (2023, June 12). *Real value of record labels*. Forbes. <https://www.forbes.com/councils/forbesbusinesscouncil/2023/06/12/real-value-of-record-labels/>
- International Federation of the Phonographic Music [IFPI]. (2024). *Global Music Report: State of the Industry*. IFPI. https://www.ifpi.org/wp-content/uploads/2024/04/GMR_2024_State_of_the_Industry.pdf
- Jadidi, M., Lietz, H., Samory, M., & Wagner, C. (2022). The Hipster Paradox in Electronic Dance Music: How Musicians Trade Mainstream Success off against Alternative Status.

- Proceedings of the International AAAI Conference on Web and Social Media*, 16, 370–380.
<https://doi.org/10.1609/icwsm.v16i1.19299>
- Jansen, A. (2020, July 6). Survival of the Vinyl Revival: A study on the contemporary co-existence of vinyl records and streaming services. [Master thesis, Erasmus University Rotterdam]. Erasmus University Thesis Repository. Retrieved from
<http://hdl.handle.net/2105/55468>
- Kendall, N. (2017, November 29). The vinyl revival proves it: we love a bit of inconvenience. *The Guardian*. <https://www.theguardian.com/commentisfree/2017/nov/29/vinyl-revival-inconvenience-spotify-youtube>
- Klamer, A. (2003). Social, cultural and economic values of cultural goods. *Journal of Cultural Economics*, 3(3), 17-39. https://doi.org/10.11195/jace1998.3.3_17
- Ko, T. H., & Lau, H. Y. K. (2015). A brand premium pricing model for digital music market. *International Journal of Trade Economics and Finance*, 6(2), 117–124.
<https://doi.org/10.7763/ijtef.2015.v6.454>
- Lüders, M., Sundet, V. S., & Colbjørnsen, T. (2021). Towards streaming as a dominant mode of media use? A user typology approach to music and television streaming. *Nordicom Review*, 42(1), 35-57. <https://doi.org/10.2478/nor-2021-0011>
- Macdonald, M. (2024, July 19). *How many major record labels are there and who are the big players?* Product London. <https://www.productlondon.com/how-many-major-record-labels-are-there/#:~:text=Major%20record%20labels%20wield%20unmatched,distribution%20channels%2C%20and%20market%20trends>
- Mall, A. (2018). Concentration, diversity, and consequences: Privileging independent over major record labels. *Popular Music*, 37(3), 444-465. <https://doi.org/10.1017/S0261143018000375>
- Mall, A. (2021). Vinyl Revival. *Journal of Popular Music Studies*, 33(3), 73-77.
<https://doi.org/10.1525/jpms.2021.33.3.73>
- Marshall, L. (2013). The Structural Functions of Stardom in the Recording Industry. *Popular Music and Society*, 36(5), 578–596. <https://doi-org.eur.idm.oclc.org/10.1080/03007766.2012.718509>
- Marshall, L. (2015). ‘Let's keep music special. F—Spotify’: on-demand streaming and the controversy over artist royalties. *Creative Industries Journal*, 8(2), pp. 177-189.
<https://doi.org/10.1080/17510694.2015.1096618>
- McAllister, R. (2023, October 2). Sony Music Entertainment acquisition of AWAL and neighbouring rights cleared in CMA final report. The Orchard - Music Distribution.

<https://www.theorchard.com/press/sony-music-entertainment-acquisition-of-awal-and-neighbouring-rights-cleared-in-cma-final-report/>

- McCourt, T. (2005). Collecting Music in the Digital Realm. *Popular Music and Society*, 28(2), 249–252. <https://doi-org.eur.idm.oclc.org/10.1080/03007760500045394>
- Muikku, J. (2017). Pro Rata and User Centric Distribution Models: A Comparative Study. *Digital Media*, 2, 14. <https://www.fim-musicians.org/wp-content/uploads/prorata-vs-user-centric-models-study-2018.pdf>
- Osborne, R. (2018). Vinyl, Vinyl everywhere: The analog record in the digital world. In *The Routledge Companion to Media Technology and Obsolescence* (pp. 200-214). Routledge.
- Palm, M. (2017). Analog backlog: Pressing records during the vinyl revival. *Journal of Popular Music Studies*, 29(4), e12247, 1-14. <https://doi.org/10.1111/jpms.12247>
- Palm, M. (2019). Keeping what real? Vinyl records and the future of independent culture. *Convergence*, 25(4), 643-656. <https://doi.org/10.1177/1354856519835485>
- Pastukhov, D. (January 1, 2024). The Mechanics of Recording Industry: A Brief History & Its Functions. *SoundCharts | Blog*. Retrieved 12 April 2025. <https://soundcharts.com/blog/mechanics-of-the-recording-industry>
- Quelch, J. A. (1987). Marketing the premium product. *Business horizons*, 30(3), 38-45. [https://doi.org/10.1016/0007-6813\(87\)90035-8](https://doi.org/10.1016/0007-6813(87)90035-8)
- Rao, V. R. (2010). Conjoint analysis. *Wiley International Encyclopedia of Marketing*. <https://doi-org.eur.idm.oclc.org/10.1002/9781444316568.wiem02019>
- Recorded Industry Association of America (RIAA) (1973-2022). US Recorded Music Sales by Format [Database record]. Retrieved from <https://www.riaa.com/u-s-sales-database/> <https://doi.org/10.1016/j.techfore.2015.10.012>
- Remic, B. (2015, June 8). Vinyl Resurgence. [Master thesis, Erasmus University Rotterdam]. Erasmus University Thesis Repository. Retrieved from: <http://hdl.handle.net/2105/32695>
- Rys, D. (2024, April 12). Record label market Share Q1 2024: Warner Records posts huge gains while Universal enters a new era. *Billboard*. <https://www.billboard.com/business/record-labels/record-label-market-share-q1-2024-universal-warner-1235655068/>
- Sarpong, D., Dong, S., & Appiah, G. (2016). ‘Vinyl never say die’: The re-incarnation, adoption and diffusion of retro-technologies. *Technological Forecasting and Social Change*, 103, 109-118. <https://doi.org/10.1016/j.techfore.2015.10.012>
- Snapes, L. (2025, April 2). Charli XCX: Brat review – insecurity-obliterating anthems by pop’s most human superstar. *The Guardian*.

<https://www.theguardian.com/music/article/2024/jun/06/charli-xcx-brat-review-insecurity-obliterating-anthems-by-pops-most-human-superstar>

Sony Music Entertainment Discography. (n.d.). Discogs. Retrieved 13 June 2025, from

<https://www.discogs.com/label/29073-Sony-Music-Entertainment>

Stead, B. (2020, February 18). *Council Post: High-Definition Music: Bringing quality back to convenience*. Forbes. <https://www.forbes.com/councils/forbestechcouncil/2020/02/18/high-definition-music-bringing-quality-back-to-convenience/>

T.A.P.E. MUZIK - Shop - About the cassette. (n.d.). T.A.P.E. MUZIK.

<https://tapemuzik.de/home/about-the-cassette/?lang=en>

Thow, L. (2023). *Bandcamp, SoundCloud, and the Digital Underground: Exploring Curatorial Practice Across Independent Music Platforms* [Master thesis, Concordia University].

Spectrum Research Repository. Retrieved from:

<https://spectrum.library.concordia.ca/id/eprint/992759/>

Throsby, D. (2008). The concentric circles model of the cultural industries. *Cultural Trends*, 17(3), 147–164. <https://doi-org.eur.idm.oclc.org/10.1080/09548960802361951>

Towse, R. (2010). *A textbook of cultural economics*. Cambridge University Press.

Universal Music Group | Discogs. (n.d.). Retrieved 13 June 2025, from

<https://www.discogs.com/label/38404-Universal-Music-Group>

Vaininen, M. (2016). *Digital transformation in music industry: A multiple case study of Finnish record labels*. [Master thesis, Aalto University]. Aaltodoc. Retrieved from:

<https://aaltodoc.aalto.fi/items/986757cd-4032-4fa1-bf50-8c8ce58210e0>

Wälde, K., & Moors, A. (2017). Current Emotion Research in Economics. *Emotion Review*, 9(3), 271–278. <https://doi-org.eur.idm.oclc.org/10.1177/1754073916665470>

Waldfogel, J. (2017). How digitization has created a golden age of music, movies, books, and television. *Journal of Economic Perspectives*, 31(3), 195–214.

<https://doi.org/10.1257/jep.31.3.195>

Warner Music Group Discography. (n.d.). Discogs. Retrieved 13 June 2025, from

<https://www.discogs.com/label/2345-Warner-Music-Group>

White, L. H. (2012). *The clash of economic ideas: The great policy debates and experiments of the last hundred years*. Cambridge University Press.

Whitehouse, S. (2023). “Taking a chance on a record”: lost vinyl consumption practices in the age of music streaming. *Consumption Markets & Culture*, 26(1), 64–80.

<https://doi.org/10.1080/10253866.2022.2134124>

Wiśniewski, J. B. (2013). Non-Excludability, Externalities, and Entrepreneurship—An Overview of the Austrian Theory of Common Goods. *Journal of Prices & Markets*, 1(1), 57-68.

<https://ssrn.com/abstract=2394889>

X-Disc. (2023, October 26). *What is the maximum length of material that can be placed on vinyl?*

XDiSC. <https://-.pl/en/what-is-the-maximum-length-of-material-that-can-be-placed-on-vinyl/#:~:text=A%2012%E2%80%B3%20DMM%20Standard%20record,to%20potential%20sound%20quality%20degradation>

Zavaleta, J. (2025, January 24). ‘Brat and it’s completely different but also still Brat’ gets new vinyl release after first pressing quickly sold out. *Rolling Stone*.

<https://www.rollingstone.com/product-recommendations/lifestyle/charli-xcx-brat-vinyl-release-1235157370/>

Appendix A: Data for Figures 3, 4, 5 and 6

Table A1

The number of vinyl releases per country, 2007-2024 (source: Discogs API) – Figure 3 and Figure 4.

Year	Country				
	U.S.	U.K.	France	Germany	Total
2007	13084	16427	3055	100028	42594
2008	14291	13935	3008	9158	40392
2009	15849	12131	3040	9139	40159
2010	17450	11344	2973	8723	40490
2011	20120	11130	2943	8920	43113
2012	21553	12101	3405	9962	47021
2013	23699	12913	3754	10642	51008
2014	24687	12912	3881	10869	52349
2015	22977	13652	3926	10904	51459
2016	23664	14262	4681	11482	54089
2017	23837	14865	4970	11625	55297
2018	25552	15572	5347	11785	58256
2019	25907	15612	5328	11349	58196
2020	25777	15815	5010	11460	58062
2021	26840	15950	5319	10891	59000
2022	27502	14623	5190	10816	58131
2023	29663	14663	5000	10661	59987
2024	25513	12837	4281	9331	51962

Table A2

The number of CD releases per country, 2007-2024 (source: Discogs API)- Figure 5 and Figure 6.

Year	Country				
	U.S.	U.K.	France	Germany	Total
2007	40109	18874	8819	15291	83093
2008	36494	17333	8135	14771	76733
2009	31476	16637	7919	13356	69388
2010	28481	14799	7379	12777	63436
2011	26883	14211	6900	12542	60536
2012	25195	13913	6804	12272	58184
2013	24165	12599	6656	11373	55157
2014	22835	11613	6027	11246	51721
2015	20794	10589	6330	11076	48789
2016	19630	10249	5969	10769	46617
2017	18512	9325	5490	9990	43317
2018	16504	8520	5259	8976	39259
2019	14604	7474	4855	8376	35309
2020	12255	6365	3767	6973	29360
2021	11812	5973	3978	6644	28407
2022	10888	5447	3529	6116	25980
2023	9146	4790	3137	4837	21910
2024	7627	4184	2424	3772	18007

Appendix B: Codebook

Table B1

Coding scheme.

Variable name	Description	Type	Code	Source
<i>art_name</i>	Name of the artist/band.	string	uncoded	Discogs API
<i>title</i>	Title of a release.	String	uncoded	Discogs API
<i>label_type</i>	Type of a label.	Dummy	0 = Major, 1 = Independent	Discogs
<i>year</i>	Year of a release.	Dummy	0 = 2009, 1 = 2023	Discogs API
<i>pop_art</i>	Popularity of an artist.	Dummy	0 = present on Billboard in a year of release, or before, 1 = absent, or found after the year of the release	Billboard
<i>d_pres_major</i>	Presence on major streaming platforms.	Dummy	0 = absent, 1 = present on at least one	Spotify, Amazon Music, Apple Music, YouTube Music
<i>d_pres_alt</i>	Presence on alternative platforms.	Dummy	0 = absent, 1 = present on at least one	Bandcamp, Soundcloud
<i>genre_rock</i>	Genre of a release is rock.	Dummy	0 = no, 1 = yes	Discogs
<i>genre_electronic</i>	Genre of a release is electronic.	Dummy	0 = no, 1 = yes	Discogs
<i>genre_pop</i>	Genre of a release is pop.	Dummy	0 = no, 1 = yes	Discogs
<i>genre_folk</i>	Genre of a release is folk.	Dummy	0 = no, 1 = yes	Discogs
<i>genre_jazz</i>	Genre of a release is jazz.	Dummy	0 = no, 1 = yes	Discogs
<i>genre_funk</i>	Genre of a release is funk.	Dummy	0 = no, 1 = yes	Discogs

<i>genre_classical</i>	Genre of a release is classical.	Dummy	0 = no, 1 = yes	Discogs
<i>genre_hiphop</i>	Genre of a release is hiphop.	Dummy	0 = no, 1 = yes	Discogs
<i>genre_latin</i>	Genre of a release is latin.	Dummy	0 = no, 1 = yes	Discogs
<i>genre_stage</i>	Genre of a release is stage & screen.	Dummy	0 = no, 1 = yes	Discogs
<i>genre_other</i>	Genre of a release outside of top 10 genres.	Dummy	0 = no, 1 = yes	Discogs
<i>nr_track</i>	Number of tracks on a release.	Numerical	Continuous	Discogs
<i>format</i>	Format of a release (diameter of a record).	Numerical	Continuous	Discogs
<i>prod_diff_ph_colour</i>	The record has a different colour than black.	Dummy	0 = no, 1 = yes	Discogs
<i>prod_diff_ph_180g</i>	The record weighs more than 180 gram.	Dummy	0 = no, 1 = yes	Discogs
<i>prod_diff_ph_gate</i>	The record has a gatefold packaging.	Dummy	0 = no, 1 = yes	Discogs
<i>prod_diff_con_soundtrack</i>	The release is a soundtrack.	Dummy	0 = no, 1 = yes	Discogs
<i>prod_diff_con_compilation</i>	The release is a compilation.	Dummy	0 = no, 1 = yes	Discogs
<i>prod_diff_con_live</i>	The release is a live version.	Dummy	0 = no, 1 = yes	Discogs
<i>prod_diff_con_box</i>	The release is a box set.	Dummy	0 = no, 1 = yes	Discogs
<i>prod_diff_con_re</i>	The release is a re-release.	Dummy	0 = no, 1 = yes	Discogs
<i>prod_diff_con_tour</i>	The release is a tour version.	Dummy	0 = no, 1 = yes	Discogs
<i>bundle_poster</i>	The release has a poster included.	Dummy	0 = no, 1 = yes	Discogs

<i>bundle_digital</i>	The release has a QR code/ codes for MP3 download included.	Dummy	0 = no, 1 = yes	Discogs
<i>bundle_other</i>	The release adds any other extra products.	Dummy	0 = no, 1 = yes	Discogs
<i>premium</i>	The release is categorised as special, limited, deluxe, hand-signed edition.	Dummy	0 = no, 1 = yes	Discogs
<i>prod_var</i>	Number of variations of a release.	Numerical	Continuous	Discogs
<i>med_price</i>	Median price of a release (in €).	Numerical	Continuous	Discogs

Appendix C: Subsidiaries of major labels

The lists of subsidiaries of Sony Music Entertainment, Warner Music Group and Universal Music Group come from pages on *Discogs* of each label (also included in the references):

Warner Music Group Discography. (n.d.). Discogs. Retrieved 13 June 2025, from

<https://www.discogs.com/label/2345-Warner-Music-Group>

Sony Music Entertainment Discography. (n.d.). Discogs. Retrieved 13 June 2025, from

<https://www.discogs.com/label/29073-Sony-Music-Entertainment>

Universal Music Group | Discogs. (n.d.). Retrieved 13 June 2025, from

<https://www.discogs.com/label/38404-Universal-Music-Group>

Sony Music Entertainment				Warner Music Group				Universal Music Group			
All subsidiaries	Type	Selected (only labels)	Excluded	All subsidiaries	Type	Selected (only labels)	Excluded	All subsidiaries	Type	Selected (only labels)	Excluded
Alamo Records (5)	label	Alamo Records (5)	All My Love	143 Records Inc.	phonographic copyright company	Arts Music (4)	143 Records Inc.	PIASJ Entertainment Group	record company	"10:22 PM"	21 Black Jack
AI My Love	series	ARC (3)	American Originals (2)	2CD Originals	series	Arts Music Inc	2CD Originals	Almo Sounds	label	70s	70s
American Originals (2)	series	Ariola	Arc Of Light	2LP MC	series	Asylum Records	2LP MC	Angel Records	series	A Grande Opera	A Grande Opera
ARC (3)	not sure	Bang Records	Arista Records	4 Albums	series	Atlantic	4 Albums	AVI Records	series	AB Knäppupp	Abstract Sounds Music Ltd.
Arc Of Light	label	Bluebird RCA	Arista Records	ADA Music Benelux	distribution	Big Beat	ADA Music Benelux	A Grande Opera	series	Columbia Records	Abstract Sounds Music Ltd.
Ariola	label	Camden	AWA (4)	Alternative Distribution Alliance	distribution	Corporate Thugz Entertainment	Alternative Distribution Alliance	AB Knäppupp	distribution	Coral	Alternath/Interscope Records
Arista	label	Camden	Awal	An Introduction To	series	East West Records, LLC	An Introduction To	Abstract Sounds Music Ltd	phonographic copyright company	D.J. International Records	Amadeo Österreichische Schallplatten Ges.m.b.H.
Arista France	no releases in US	Clean Slate	Believe In A Dream	Artery Recordings	record company	Elektra	Artery Recordings	Alternath/Interscope Records	phonographic copyright company	De-Lite Records	Ape Shit, Inc.
Arista Records	record company	Columbia	Blue Sky	Arts Music (4)	label	First Night Records	Arts Music Inc.	Almo Sounds	label	Decca	APESHIT, INC.
AWA (4)	no releases in US	Culebra	BMG Ariola Special Projects	Arts Music Inc	label	Fonomusic	Atlantic Recording Corporation	Anadeo Österreichische Schallplatten Ges.m.b.H.	record company	Decca Broadway	Arsenal Music
Awal	distribution	Disruptor Records	Classic Album (2)	Arts Music Inc.	licensing	Hispavox, S.A.	Burmans Förlag AB	Angel Records	label	Deram	Astralwerks Records
Bang Records	label	Epic	Cobalt Music (2)	Asylum Records	label	Atlantic Recording Corporation	Chappell Music Co., Inc.	Ape Shit, Inc.	not sure?	Desert Storm Records	ASV Ltd.
Believe In A Dream	defunct label	Humble Sound Music Group	Columbia Records	Atlantic Recording Corporation	record company	Metronome	Collector's Edition	APESHIT, INC.	record company	DreamWorks Records	Atmosphere (2)
Blue Sky	defunct label	Humble Sound Records	Complete Albums Collection	Atlantic	label	nsb - NonSolo Blue's	Dig! Store	Arsenal Music	label (no releases in US)	Ei Cartel Records	Audior
Bluebird RCA	label	Kemosabe Records	Connect Sets	Big Beat	label	NVC Arts	East West Japan Inc.	Astralwerks Records	licensing	Et's Pride Records	Back To Black
BMG Ariola Special Projects	defunct label	LaFace Records	Double Pack: 2 Original Albums	Burmans Förlag AB	publishing	Parlophone Label Group	EastWest Records GmbH	ASV Ltd	phonographic copyright company	Electrola	Bitstream Media Lab
Camden	label	Legacy	Epic Records	Chappell Music Co., Inc.	publishing	Rhino/Warner Records	Elektra Entertainment Group	Atmosphere (2)	music library	EMI	Black Box Music Limited
Classic Album (2)	series	Monument	Essential Rock Classics	Collector's Edition	series	Roadrunner Records	Elektra Entertainment Group Inc.	Audior	series	EP Entertainment	Bob Marley Official Store
Clean Slate	label	Mr. Kanani	Gold (4)	Corporate Thugz Entertainment	label	Run Out Groove	Elektra Records	AVI Records	label	EQT Recordings	Bravado International Group Ltd.
Cobalt Music (2)	label (no releases in US)	Odd Future LLC	Harmonia Mundi, Freiburg	Dig! Store	retailer	Sire	EMI Music Norway AS	Back To Black	series	Flattiron Music Group / Island Records	Casablanca Music Ltd.
Columbia	label	Palm Tree Records (6)	Headbangr	East West Japan Inc.	manufacture	Spinnin' Records	EMI Music Portugal, Lda.	Bitstream Media Lab	label (no releases in US)	Fontana	Deluxe (16)
Columbia Records	record company	RCA	Johnny Cash Bootleg Series	East West Records, LLC	label	TELDEC	EMI Music Sweden AB	Black Box Music Limited	record company	Geffen/Interscope Records	Deluxe Edition
Complete Albums Collection	series	RCA Music Group	Legacy Recordings (5)	EastWest Records GmbH	record company	Terror Squad Production	EMI Records Ltd.	Bob Marley Official Store	retailer	Hip-O Select	Deluxe Sound + Vision
Connect Sets	series	RCA Records Label	Limited Edition 3.0	Elektra	label	Warner	Fueled By Ramen, LLC	Bravado International Group Ltd.	publishing	His Master's Voice	Deutsche Grammophon GmbH
Culebra	label	RCA Victor	Mis Favoritas	Elektra Entertainment Group	phonographic copyright company	Warner Archives	Gold Typhoon Music Co. Ltd.	Casablanca Music Ltd.	phonographic copyright company	Imperial	Discos Y Cintas Melody, S.A.
Disruptor Records	label	Records (11)	Movie Millenium	Elektra Entertainment Group Inc.	phonographic copyright company	Warner Music	HipHopDX	Columbia Records	label	Interscope Capitol Labels Group	Eloquence
Double Pack: 2 Original Albums	series	Relentless Records	Original 123 CD Box Set	Elektra Records	phonographic copyright company	Warner Music Canada	Jadar Music Corp.	Coral	label	Joombas Music Group	Empire Distribution
Epic	label	S3	Original Album Classics	EMI Music Norway AS	phonographic copyright company	Warner Music Central Europe	London-Sire Records Inc.	D.J. International Records	label	Kalimba Music (2)	Estupendo Records Ltd.
Epic Records	record company	Sidk Wid' It Records	Pink Floyd Music Ltd.	EMI Music Portugal, Lda.	phonographic copyright company	Warner Music Enterprises	Maverick Recording Company	De-Lite Records	label	Lost Highway	Future Records Limited
Essential Rock Classics	series	Sony Connect	Popvill Sessions	EMI Music Sweden AB	phonographic copyright company	Warner Music France	MMG Inc.	Decca	label	MCA Records	Globe Productions (2)
Gold (4)	series	Sony Music	Provident Label Group LLC	EMI Records Ltd.	phonographic copyright company	Warner Music Group	Mushroom Records Pty. Ltd.	Decca Broadway	label	Mercury Nashville	Island Def Jam Music Group
Harmonia Mundi, Freiburg	media company	Sony Music CG	RCA Records	First Night Records	label	Warner Music International	Nonesuch Records Inc.	Deluxe (16)	series	Musidisc	Isolation Network, Inc.
Headbangr	no releases in US	Sony Music Nashville	RCA/IVE Label Group	Fonomusic	label	Warner Music Nashville	Original Album Series	Deluxe Edition	series	Oriental Star Agencies Ltd	Je T'Aime (2)
Humble Sound Music Group	label	Tan Cressida	RECORDS, LLC	Fueled By Ramen, LLC	record company	Warner Music UK	Parlophone Music Belgium	Deluxe Sound + Vision	series	Pampa	Karusell Grammofon AB
Humble Sound Records	label	The Cherry Party	RED MUSIC (4)	Gold Typhoon Music Co. Ltd.	licensing	Warner Strategic Marketing	Parlophone Music Poland Sp. z o.o.	Deram	label	Philips	Kidz Bop
Johnny Cash Bootleg Series	series	Un Plan Simple	S.O.U.L. (2)	Hispavox, S.A.	label	WSM	Rhino Entertainment Company	Desert Storm Records	label	PMAM Recordings	Knäppupp (Aktiebolaget Knäppupp, Ramel-Aivoproduktion)
Kemosabe Records	label	Will I Am Music Group	Santa Anna Label Group	Jadar Music Corp.	publishing	X5 Music Group	Rightsong Music, Inc.	Deutsche Grammophon GmbH	record company	Polydor	MCA Music Inc. (2)
LaFace Records	label	Windham Hill Records	SME France	London-Sire Records Inc.	record company		Rykomatic, Inc.	Discos Y Cintas Melody, S.A.	record company	PolyGram	MCA Music Scandinavia AB
Legacy	label	XXIM Records	Sony BMG Music Entertainment (Brasil) Ltd.	Major Recordings	label		Side By Side (2)	DreamWorks Records	label	Polygram Entertainment	MCA Special Markets & Products, Inc.
Legacy Recordings (5)	copyright company	Zomba	Sony Classical international	Maverick Recording Company	phonographic copyright company		T-Girl Music, LLC	Ei Cartel Records	label	Porygon Records	MCA Victor, Inc.
Limited Edition 3.0	series	Zomba Label Group	Sony Discos Inc.	Metronome	label		The All Blacks U.S.A., Inc.	Et's Pride Records	label	Republic Corps	Mercury Studios Media, Inc.
Mis Favoritas	series		Sony Millennium	MMG Inc.	label		Two On One (4)	Electrola	series	Show Dog Nashville	Millennium Edition
Monument	label		Sony Millennium Pop	Mushroom Records Pty. Ltd.	phonographic copyright company		Warner Bros. Music Ltd.	Eloquence	label	Signature Sinatra	Minos-EMI S.A.
Movie Millenium	series		Sony Music Belgium	Nonesuch Records Inc.	phonographic copyright company		Warner Bros. Publications	EMI	label	Sonet	Motown 50th Anniversary
Mr. Kanani	label		Sony Music Entertainment (Brasil) Ltd.	nsb - NonSolo Blue's	label		Warner Bros. Records Inc.	Empire Distribution	distribution	Sonet	Motown 50th Anniversary
Odd Future LLC	label		Sony Music Entertainment (Central America) S.A.	NVC Arts	label		Warner Music Africa	EP Entertainment	label	Spectrum	PIASJ Entertainment Group
Original 123 CD Box Set	series		Sony Music Entertainment (España) S.A.	Original Album Series	series		Warner Music Asia Pacific	EQT Recordings	label	Stiff Records	Polar Music International AB
Original Album Classics	series		Sony Music Entertainment (Philippines) Inc.	Parlophone Label Group	label		Warner Music Baltics	Estupendo Records Ltd.	record company	T-boy Records	PolyGram Film & TV Music
Palm Tree Records (6)	label		Sony Music Entertainment (Poland) Sp. z o.o.	Parlophone Music Belgium	phonographic copyright company		Warner Music Canada Co.	Flattiron Music Group / Island Records	label	Tania Motown	PolyGram Ges.m.b.H.
Pink Floyd Music Ltd.	phonographic copyright company		Sony Music Entertainment Africa (Pty) Ltd.	Parlophone Music Poland Sp. z o.o.	record company		Warner Music Canada Ltd	Fontana	label	The INC Records	PolyGram Pty. Limited
Popvill Sessions	series		Sony Music Entertainment Argentina S.A.	Parlophone Music Poland Sp. z o.o.	record company		Warner Music Catalogue	Future Records Limited	phonographic copyright company	U2 Dot Com	Polygram Video International Limited
Provident Label Group LLC	phonographic copyright company		Sony Music Entertainment Australia Pty Ltd.	Parlophone Records Ltd.	record company		Warner Music Discovery Inc	Geffen/Interscope Records	label	UCJ	Polymusica
RCA	label		Sony Music Entertainment Austria GmbH	Rhino Entertainment Company	record company		Warner Music Colombia S.A.	Globe Productions (2)	production company	UCJ Music	Quicksilver Recording Company Ltd.
RCA Music Group	label		Sony Music Entertainment Belgium NVSA	Rhino/Warner Records	label		Warner Music Greece S.A.	Hip-O Select	label	UME	RAS Records Inc.
RCA Records	phonographic copyright company		Sony Music Entertainment Canada Inc.	Rightsong Music, Inc.	publishing		Warner Music Group S.A.	His Master's Voice	label	UMG Soundtracks	Reapers Studios
RCA Records Label	label		Sony Music Entertainment Chile S.A.	Roadrunner Records	label		Warner Music Group Central Europe	Imperial	label	Universal	Retro ... 2 TV Obrazovek
RCA Victor	label		Sony Music Entertainment China Holdings Limited	Run Out Groove	label		Warner Music Group Germany Holding GmbH	Interscope Capitol Labels Group	label	Universal Classics & Jazz	Rondor Music
RCA/IVE Label Group	phonographic copyright company		Sony Music Entertainment Colombia S.A.	Rykomatic, Inc.	publishing		Warner Music Group Inc.	Island Def Jam Music Group	phonographic copyright company	Universal Motown Records Group	Shady/Alternath/Interscope
Records (11)	label		Sony Music Entertainment Czech Republic s.r.o.	Side By Side (2)	series		Warner Music Group Video Game Licensing	Isolation Network, Inc.	record company	Universal Music	Shady/Interscope Records
RECORDS, LLC	phonographic copyright company		Sony Music Entertainment Denmark A/S	Sire	label		Warner Music India	Je T'Aime (2)	series	Universal Music Catalogue	Sinfini Music
				Spinnin' Records	label		Warner Music Latina Inc.	Joombas Music Group	label	Universal Music DVD Video	Sonimage

RED MUSIC (4)	distribution	Sony Music Entertainment España, S. L.	T-Girl Music, LLC	publishing	Warner Music New Zealand Limited	Kalimba Music (2)	label production company	Universal Music Group International	Sonora (2)
Releaseless Records	label	Sony Music Entertainment Finland Oy	TELDEC	label	Warner Music Nordic	Karusell Grammoton AB		Universal Music Latin Entertainment	Sound + Vision
Rock Box Edition	series	Sony Music Entertainment France	Terror Squad Production	label phonographic copyright company	Warner Music Poland Sp. z o.o.	Kidz Bop Knäppupp [Kälsbolaget Knäppupp, Ramei-Alvoproduktion]	series	Universal Records	Tanglede Ltd
S.O.U.L. (2)	series	Sony Music Entertainment France S. A.S.	The All Blacks U.S.A., Inc.		Warner Music Portugal, Lda		record company	UTV Records	The Decca Record Company Limited
S3	label	Sony Music Entertainment Greece S. A.	Two On One (4)	series	Warner Music Russia	Lost Highway	label	Vertigo	The Originals
Santa Anna Label Group	distribution	Sony Music Entertainment Greece A. E.	Warner	label	Warner Music Spain S.L.	LostTunes.com	store	Virgin Music Group	The Originals Special
Sick Wid It Records	label	Sony Music Entertainment Group	Warner Archives	label	Warner Music Ukraine	MCA Music Inc. (2)	record company		The Pure Series
SME France	phonographic copyright company	Sony Music Entertainment Hong Kong Ltd.	Warner Bros. Music Ltd.	publishing	Warner Music United Kingdom	MCA Music Scandinavia AB	publishing		The Sound Of Vinyl
Sony BMG Music Entertainment (Brasil) Ltda.	licensing	Sony Music Entertainment India Pvt. Ltd.	Warner Bros. Publications	publishing phonographic copyright company	Warner Music Vietnam	MCA Records	label phonographic copyright company		The Universal Masters Collection
Sony Classical International	licensing	Sony Music Entertainment International Limited	Warner Bros. Records Inc.		Warner Platinum	MCA Special Markets & Products, Inc.			The Verve Music Group
Sony Connect	label	Sony Music Entertainment International Services GmbH	Warner Music	label (no releases in US)	Warner Records Inc.	MCA Victor, Inc.	record company		Toutankhamon
Sony Discos Inc.	manufacture	Sony Music Entertainment Italy S.p.A.	Warner Music Africa	label (no releases in US)	Warner Records LLC	Mercury Nashville	label		Traxx
Sony Millenium	series	Sony Music Entertainment Korea Inc.	Warner Music Asia Pacific	label (no releases in US)	Warner Special Products, Inc.	Mercury Studios Media, Inc.	distribution		Trinifold Management
Sony Millenium Pop	series	Sony Music Entertainment Ltd.	Warner Music Baltics	label (no releases in US)	Warner Strategic Marketing Inc.	Millennium Edition	series		Trinifold Music Ltd.
Sony Music	label	Sony Music Entertainment Magyarország Kft.	Warner Music Canada	label	Warner/Chappell	Minos-EMI S.A.	record compant		Twenty-First Artists Ltd.
Sony Music Belgium	distribution	Sony Music Entertainment Malaysia Sdn Bhd	Warner Music Canada Co.	manufacture	Warner/Chappell Music, Inc.	Motown 50th Anniversary	series		Ukrainian Records
Sony Music CG	label	Sony Music Entertainment México, S. A. De C.V.	Warner Music Canada Ltd	distribution	WEA Corp.	Musidisc	label		Ultimate Christmas
Sony Music Commercial Music Group	label	Sony Music Entertainment Netherlands B.V.	Warner Music Catalogue	label (no releases in US)	Wea Distribution	Oriental Star Agencies Ltd	label		UM3-México
Sony Music Entertainment (Brasil) Ltda.	manufacture	Sony Music Entertainment New Zealand Ltd.	Warner Music Central Europe	label phonographic copyright company	WEA International Inc.	Pampa	label		UMG
Sony Music Entertainment (Central America) S.A.	phonographic copyright company	Sony Music Entertainment Norway AS	Warner Music Colombia S. A.		WEA Japan	Philips	label		UMG Commercial Services Inc.
Sony Music Entertainment (España) S.A.	phonographic copyright company	Sony Music Entertainment Poland	Warner Music Discovery Inc.	record company	WEA Records Ltd.	PMAM Recordings	label phonographic copyright company		UMG Philippines
Sony Music Entertainment (Philippines) Inc.	label (no US releases)	Sony Music Entertainment Poland Sp. z o.o.	Warner Music Enterprises	label	WMIS Limited	Polar Music International AB			UMG Recordings, Inc.
Sony Music Entertainment (Poland) Sp. z o.o.	phonographic copyright company	Sony Music Entertainment Polska	Warner Music France	label phonographic copyright company	WSM 12	Polydor	label		Universal Catalogue
Sony Music Entertainment Africa (Pty) Ltd	distribution	Sony Music Entertainment Polska Sp. z o.o.	Warner Music Greece S.A.		ZebraLution	PolyGram	label		Universal Classics Group
Sony Music Entertainment Argentina S.A.	distribution	Sony Music Entertainment Portugal Sociedade Unipessoal Lda.	Warner Music Group Central Europe	record company phonographic copyright company		Polygram Entertainment	label		Universal International Music B.V.
Sony Music Entertainment Australia Pty Ltd.	distribution	Sony Music Entertainment Singapore (Pte.) Ltd.	Warner Music Group Germany Holding GmbH			PolyGram Film & TV Music	licensing		Universal Mastering Studios
Sony Music Entertainment Austria GmbH	phonographic copyright company	Sony Music Entertainment Sweden AB	Warner Music Group Inc.	licensing		PolyGram Ges.m.b.H.	phonographic copyright company		Universal MCA Music (UK) Ltd.
Sony Music Entertainment Belgium NV/SA	phonographic copyright company	Sony Music Entertainment Switzerland GmbH	Warner Music Group Soundtracks	label		PolyGram Pty. Limited	record company		Universal Music (Pty) Ltd South Africa
Sony Music Entertainment Canada Inc.	distribution	Sony Music Entertainment Taiwan Ltd.	Warner Music Group Video Game Licensing	licensing label (no releases in US)		Polygram Video International Limited	distribution label (no releases in US)		Universal Music (Thailand) Ltd.
Sony Music Entertainment Chile S.A.	phonographic copyright company	Sony Music Entertainment Türkiye	Warner Music India			Polymusica			Universal Music (UK) Ltd.
Sony Music Entertainment China Holdings Limited	label (no US releases)	Sony Music Entertainment US Latin LLC	Warner Music International	label		Polyphon	label		Universal Music & Video Distribution
Sony Music Entertainment Colombia S.A.	phonographic copyright company	Sony Music Entertainment Venezuela C.A.	Warner Music Latina Inc.	manufacture		Porygon Records	label		Universal Music & Video Distribution, Corp.
Sony Music Entertainment Czech Republic s.r.o.	manufacture	Sony Music Hungary	Warner Music Nashville	label phonographic copyright company		Quickhaver Recording Company Ltd.	record company		Universal Music & Video Distribution, Inc.
Sony Music Entertainment Denmark AS	phonographic copyright company		Warner Music New Zealand Limited			RAS Records Inc.	manufacture		Universal Music A/S
Sony Music Entertainment España, S. L.	phonographic copyright company		Warner Music Nordic	distribution		Reapers Studios	label (no releases in US)		Universal Music A/S (3)
Sony Music Entertainment Finland Oy	phonographic copyright company		Warner Music Poland Sp. z o.o.	distribution		Republic Corps	label		Universal Music AB
Sony Music Entertainment France	distribution		Warner Music Portugal, Lda.	phonographic copyright company		Retro ... Z TV Otrazovet	series		Universal Music Argentina S.A.
Sony Music Entertainment France S. A.S.	distribution		Warner Music Russia	label (no releases in US)		Rondor Music	publishing		Universal Music AS, Norway
Sony Music Entertainment Greece S. A.	phonographic copyright company		Warner Music Spain S.L.	phonographic copyright company		Shady/Alternativ/Interscope	copyright phonographic copyright company		Universal Music Australia Limited
Sony Music Entertainment Greece A. E.	phonographic copyright company		Warner Music UK	label (no releases in US)		Shady/Interscope Records			Universal Music Australia Pty Ltd
Sony Music Entertainment Group	phonographic copyright company		Warner Music Ukraine			Show Dog Nashville	label		Universal Music Austria GmbH
Sony Music Entertainment Hong Kong Ltd.	manufacture		Warner Music United Kingdom	label (no releases in US)		Signature Sinatra	label		Universal Music B.V.
Sony Music Entertainment India Pvt. Ltd.	phonographic copyright company		Warner Music Vietnam	label (no releases in US)		Sinfini Music	website		Universal Music Belgium
Sony Music Entertainment International Limited	licensing		Warner Platinum	series		Sonet	label		Universal Music Belgium NV/SA
Sony Music Entertainment International Services GmbH	record company		Warner Records Inc.	record company		Sonimage	label (no releases in US)		Universal Music Bulgaria
Sony Music Entertainment Italy S.p.A.	phonographic copyright company		Warner Records LLC	copyright		Sonora (2)	record company		Universal Music Chile S. A.
Sony Music Entertainment Korea Inc.	distribution		Warner Special Products, Inc.	record company		Sound + Vision	series		Universal Music China
Sony Music Entertainment Ltd.	phonographic copyright company		Warner Strategic Marketing	label		Spectrum	label		Universal Music Classical
Sony Music Entertainment Magyarország Kft.	record company		Warner Strategic Marketing Inc.	licensing		Stiff Records	label		Universal Music Colombia
Sony Music Entertainment Malaysia Sdn Bhd	distribution		Warner/Chappell	publishing		T-Boy Records	label		Universal Music Colombia S.A.
Sony Music Entertainment México, S. A. De C.V.	phonographic copyright company		Warner/Chappell Music, Inc.	publishing		Tamla Motown	label		Universal Music Colombia, Ecuador, Perú y Venezuela
Sony Music Entertainment Netherlands B.V.	phonographic copyright company		WEA	label		Tanglede Ltd	royalty collection		Universal Music Denmark
Sony Music Entertainment New Zealand Ltd	phonographic copyright company		WEA Corp.	distribution		The Decca Record Company Limited	record company		Universal Music GmbH

Sony Music Entertainment Norway AS	phonographic copyright company
Sony Music Entertainment Poland	licensing
Sony Music Entertainment Poland Sp. z o.o.	distribution
Sony Music Entertainment Polska	record company
Sony Music Entertainment Polska Sp. z o.o.	phonographic copyright company
Sony Music Entertainment Portugal Sociedade Unipessoal Lda	distribution
Sony Music Entertainment Singapore (Pte.) Ltd.	distribution
Sony Music Entertainment Sweden AB	phonographic copyright company
Sony Music Entertainment Switzerland GmbH	phonographic copyright company
Sony Music Entertainment Taiwan Ltd.	record company
Sony Music Entertainment Türkiye	label (no US releases)
Sony Music Entertainment US Latin LLC	phonographic copyright company
Sony Music Entertainment Venezuela C.A.	manufacture
Sony Music Hungary	distribution
Sony Music Masterworks	record company
Sony Music Nashville	label
Sony Music Publishing	publishing
Sony Music Taiwan	manufacture, distribution
Sony/CBS, Haarlem	manufacture
Tan Cressida	label
The Cherry Party	label
The Collection (3)	series
The Collection (4)	series
The Collection (7)	series
The Collection (8)	series
The Commercial Music Group	licensing
The Essential (4)	series
The Platinum Collection (3)	series
The Sony Opera House	series
Two Original Albums	series
Un Plan Simple	label
Will.i.am Music Group	label
Windham Hill Records	label
XXIM Records	label
Zomba	label
Zomba Label Group	label
Zomba Recording LLC	record company
ООО "Сони Мьюзик Энтертейнмент"	record company

Wea Distribution	distribution
WEA International Inc.	phonographic copyright company
WEA Japan	label (no releases in US)
WEA Records Ltd.	record company
WMIS Limited	record company
WSM	label
WSM 12	series
X5 Music Group	label
Zebralution	distribution

The INC Records	label	Universal Music Greece
The Originals	series	Universal Music Group International B.V.
The Originals Special	series	Universal Music Group Mexico, S.A. de C.V.
The Pure Series	series	Universal Music Group México, S.A. de C.V.
The Sound Of Vinyl	retailer	Universal Music Holland
The Universal Masters Collection	series	Universal Music India Pvt. Ltd.
The Verve Music Group	phonographic copyright company	Universal Music Indonesia
Toutankhamon	phonographic copyright company	Universal Music International
Traxx	label (no releases in US)	Universal Music International B.V.
Trinifold Management	production company	Universal Music Ireland Ltd.
Trinifold Music Ltd.	publishing	Universal Music Italia s.r.l.
Twenty-First Artists Ltd.	royalty collection	Universal Music K.K.
UZ Dot Com	label	Universal Music Kft.
UCJ	label	Universal Music Korea
UCJ Music	label	Universal Music Limited
Ukrainian Records	label (no releases in US)	Universal Music LLC
Ultimate Christmas	series	Universal Music Ltd., Hong Kong
UMS-México	phonographic copyright company	Universal Music Ltd., Malaysia
UMe	label	Universal Music Ltd., Taiwan
UMG	publishing	Universal Music Ltda.
UMG Commercial Services Inc.	distribution	Universal Music México, S.A. de C.V.
UMG Philippines	label (no releases in US)	Universal Music Norway
UMG Recordings, Inc.	record company	Universal Music NZ Ltd.
UMG Soundtracks	label	Universal Music Operations Ltd. B.V.
Universal	label	Universal Music Organisation
Universal Catalogue	label (no releases in US)	Universal Music Oy
Universal Classics & Jazz	label	Universal Music Polska Sp. z o.o.
Universal Classics Group	manufacture	Universal Music Portugal
Universal International Music B.V.	record company	Universal Music Portugal, S.A.
Universal Mastering Studios	mastering studio	Universal Music Pte Ltd.
Universal MCA Music (UK) Ltd.	licensing	Universal Music Publishing Group
Universal Motown Records Group	label	Universal Music Publishing, Inc.
Universal Music	label	Universal Music România
Universal Music (Pty) Ltd South Africa	phonographic copyright company	Universal Music Romania & Bulgaria
Universal Music (Thailand) Ltd.	distribution	Universal Music S.A.
Universal Music (UK) Ltd.	record company	Universal Music S.A.S. France
Universal Music & Video Distribution	distribution	Universal Music Sdn. Bhd.
Universal Music & Video Distribution, Corp.	distribution	Universal Music Serbia
Universal Music & Video Distribution, Inc.	distribution	Universal Music South Africa
Universal Music A/S	record company	Universal Music Spain S. L.
Universal Music A/S (3)	phonographic copyright company	Universal Music Spain, S. L.U.
Universal Music AB	record company	Universal Music Store Italia
Universal Music Argentina S.A.	distribution	Universal Music Sweden
Universal Music AS, Norway	phonographic copyright company	Universal Music Switzerland GmbH
Universal Music Australia Limited	record company	Universal Music Taiwan
Universal Music Australia Pty Ltd	copyright	Universal Music Venezuela S.A.
Universal Music Austria GmbH	phonographic copyright company	Universal Music A.E.
Universal Music B.V.	phonographic copyright company	Universal Musica de Centroamérica S.A.
Universal Music Belgium NV/SA	label (no releases in US)	Universal Muzik Yapon Organizasyonu San. ve Tic. A.Ş.
Universal Music Bulgaria	phonographic copyright company	Universal Presenta: Universal Production Music
Universal Music Catalogue	record company	Universal Publishing Production Music
Universal Music Chile S.A.	label	Universal Publishing Production Music GmbH
Universal Music China	label (no releases in US)	Universal Records GmbH
Universal Music Classical	manufacture	Universal Records Inc.
Universal Music Colombia	manufacture	Universal Victor, Inc.
Universal Music Colombia S.A.	manufacture	USM (2)
Universal Music Colombia Ecuador, Perú y Venezuela	record company	USM International
Universal Music Denmark	distribution	V2 Music Group Limited
Universal Music DVD Video	label	Vertigo Records Ltd.
Universal Music GmbH	record company	Verve Label Group
Universal Music Greece	label (no releases in US)	Vivendi Entertainment
Universal Music Group International	label	Vivendi Visual Entertainment
Universal Music Group International B.V.	label (no releases in US)	VYRL
Universal Music Group Mexico, S.A. de C.V.	distribution	VYRL Originals
Universal Music Group México, S.A. de C.V.	distribution	Wa Records (2)
Universal Music Holland	marketing	Westbury Road Entertainment, LLC

Universal Music India Pvt. Ltd.	phonographic copyright company
Universal Music Indonesia	manufacture
Universal Music International	phonographic copyright company
Universal Music International B.V.	licensing
Universal Music Ireland Ltd.	phonographic copyright company
Universal Music Italia s.r.l.	record company
Universal Music K.K.	marketing
Universal Music Kft.	phonographic copyright company
Universal Music Korea	label (no releases in US)
Universal Music Latin Entertainment	label
Universal Music Limited	phonographic copyright company
Universal Music LLC	marketing
Universal Music Ltd., Hong Kong	copyright
Universal Music Ltd., Malaysia	phonographic copyright company
Universal Music Ltd., Taiwan	phonographic copyright company
Universal Music Ltda.	manufacture
Universal Music México, S. A. de C.V.	distribution
Universal Music Norway	copyright
Universal Music NZ Ltd.	record company
Universal Music Operations Ltd. B.V.	phonographic copyright company
Universal Music Organisation	distribution
Universal Music Oy	record company
Universal Music Polska Sp. z o.o.	record company
Universal Music Portugal	label (no releases in US)
Universal Music Portugal, S.A.	record company
Universal Music Pte Ltd.	distribution
Universal Music Publishing Group	publishing
Universal Music Publishing, Inc.	publishing
Universal Music România	label (no releases in US)
Universal Music Romania & Bulgaria	series
Universal Music S.A.	phonographic copyright company
Universal Music S.A.S. France	phonographic copyright company
Universal Music Sdn. Bhd.	distribution
Universal Music Serbia	label (no releases in US)
Universal Music South Africa	record company
Universal Music Spain S.L.	phonographic copyright company
Universal Music Spain, S.L. U.	label (no releases in US)
Universal Music Store Italia	retailer
Universal Music Sweden	label (no releases in US)
Universal Music Switzerland GmbH	phonographic copyright company
Universal Music Taiwan	label (no releases in US)
Universal Music Venezuela S.A.	manufacture
Universal Music A.E.	record company
Universal Musica de Centroamerica S.A.	record company
Universal Müzik Yapım Organizasyon San. ve Tic. A.Ş.	record company
Universal Presenta:	series
Universal Production Music	record company
Universal Publishing Production Music	publishing
Universal Publishing Production Music GmbH	copyright
Universal Records	label
Universal Records GmbH	licensing
Universal Records Inc.	phonographic copyright company
Universal Victor, Inc.	manufacture
USM (2)	label (no releases in US)
USM International	record company
UTV Records	label
V2 Music Group Limited	record company
Vertigo	label
Vertigo Records Ltd.	record company
Verve Label Group	phonographic copyright company
Virgin Music Group	label
Vivendi Entertainment	label (no releases in US)
Vivendi Visual Entertainment	label (no releases in US)
VYRL	label (no releases in US)
VYRL Originals	label (no releases in US)
Wa Records (2)	label (no releases in US)
Westbury Road Entertainment, LLC	phonographic copyright company
ООО «Юниверсал Мьюзик»	phonographic copyright company

ООО «Юниверсал Мьюзик»

Appendix D: Declaration of AI

Declaration Page: Use of Generative AI Tools in Course Assignments

Student Information

Name: Shiloh Naus

Student ID: 577330

Course Name: Master Thesis

Instructor Name: Dr. C.W. (Christian) Handke

Assignment Title: Master Thesis, Final Version

Date: June 13, 2025

Declaration:

Acknowledgment of Generative AI Tools

I acknowledge that I am aware of the existence and functionality of generative artificial intelligence (AI) tools, which are capable of producing content such as text, images, and other creative works with limited user input.

GenAI use could include, but is not limited to:

- Generated content (e.g., ChatGPT, DeepSeek, Quillbot)
- Writing improvements, including grammar and spelling corrections (e.g., Grammarly)
- Language translation (e.g., DeepL)
- Research task assistance (e.g., finding survey scales, qualitative coding, debugging code, Gemini Deep Research)
- Using GenAI as a search engine tool to find academic articles or books. (e.g. Perplexity AI)
-

For any GenAI task, 1) it must be permitted by the course and 2) you are responsible for verifying the accuracy of the outputs used in any submission. Improper use of sources obtained from GenAI could constitute academic fraud.

Also, 3) the requested prompts/logs (under Extent of AI Usage below) may be either screenshots or textual copies. The appendix can be included as part of the main submission or submitted as a separate document. Check with your lecturer.

☒ I declare that I have used generative AI tools, specifically Chat GPT, in the process of creating parts or components of my course assignment. The purpose of using these tools was to aid in generating content or assisting with specific aspects of the assignment.

Extent of AI Usage

☒ I confirm that while I utilized generative AI tools to aid in content creation, the majority of the intellectual effort, creative input, and decision-making involved in completing the assignment were

☐ I declare that I have NOT used any generative AI tools and that the assignment concerned is my original work.

Signature: [digital signature]

Date of Signature: [Date of Submission]

undertaken by me. I have enclosed the prompts/logging of my GenAI tool use in an appendix.

Ethical and Academic Integrity

☒ I understand the ethical implications and academic integrity concerns related to the use of AI tools in coursework. I assure that the AI-generated content was used responsibly, and any content derived from these tools has been appropriately cited and attributed according to the guidelines provided by the instructor and the course. I have taken necessary steps to distinguish between my original work and the AI-generated contributions. Any direct quotations, paraphrased content, or other forms of AI-generated material have been properly referenced in accordance with academic conventions.

By signing this declaration, I affirm that this declaration is accurate and truthful. I take full responsibility for the integrity of my assignment and am prepared to discuss and explain the role of generative AI tools in my creative process if required by the instructor or the Examination Board. I further affirm that I have used generative AI tools in accordance with ethical standards and academic integrity expectations.

Signature: Shiloh Naus

Date of Signature: June 13, 2025

Below, I would like to present on specific use of AI in the conducted research. The output I have used was performed on a platform – Google Colab. Moreover, in order to access the needed information from Discogs API, I needed to create my own application, and I have generated my personal consumer key and consumer secret numbers, which I present here as “xxx” and “zzz”, as they need to remain confidential. The necessity of using AI emerged from the limitations of API and thus the code I wrote was not sufficient. AI provided me with a solution for this by creating a loop, that further resulted in access to the information.

1. Code for getting the number of vinyl and CD releases for a given year (2007-2024), per country (I would change the format and the year) which was used for Table 3, Table 4, Table 5 and Table 6:

Me:

"I need this code to show me the number of vinyl releases from a given country, for example US vinyl releases from 2007 and I keep getting this message:

```
NameError                                Traceback (most
recent call last)
<ipython-input-2-5c8d70422fbf> in <cell line:
0>()
    16
    17 # fetching
--> 18 response = requests.get(url,
params=params)
    19
    20 print(f"Total number of vinyl releases in the
US in 2007: {total_vinyls}")
```

NameError: name 'requests' is not defined

This is my code:

```
# My discogs
CONSUMER_KEY = 'xxx'
CONSUMER_SECRET = 'zzz'

url = "https://api.discogs.com/database/search"

# parameters of releases
params = {
    'year': '2007',
    'format': 'Vinyl',
    'country': 'US',
    'page': 1,
    'key': CONSUMER_KEY,
    'secret': CONSUMER_SECRET
}

# fetching
response = requests.get(url, params=params)

print(f"Total number of vinyl releases in the US in
2007: {total_vinyls}")
```

Chat GTP:

"You can use the Discogs API to determine the number of vinyl releases in the US in 2007 by making a request with the correct parameters and checking the total number of results. The Discogs

API provides a pagination system, and the total number of results can be found in the response.

Here's how you can do it:

Python Code to Fetch the Total Number of Vinyl Releases in the US in 2007

python
CopyEdit

```
import requests

CONSUMER_KEY = 'xxx'
CONSUMER_SECRET = 'zzz'

# List of countries
countries = ['US', 'UK', 'Germany', 'France']

# Discogs API endpoint
url = "https://api.discogs.com/database/search"

# Loop through each country and print the total vinyl releases
for country in countries:
    params = {
        'year': '2024',
        'format': 'CD',
        'country': country,
        'per_page': 1, # Only need one to get pagination info
        'page': 1,
        'key': CONSUMER_KEY,
        'secret': CONSUMER_SECRET
    }

    response = requests.get(url, params=params)

    if response.status_code == 200:
        data = response.json()
        total = data.get('pagination', {}).get('items', 0)
        print(f"{country}: {total} CD releases in 2024")
    else:
```

```
print(f"Failed to fetch data for  
{country}: {response.status_code} -  
{response.text}")
```

Output of the code:

```
US: 7627 CD releases in 2024  
UK: 4184 CD releases in 2024  
Germany: 3772 CD releases in 2024  
France: 2424 CD releases in 2024
```

2. Code for independent labels' releases (I would change the year of the correct code, 2009 and 2023):

Me: I am writing the code that needs to show me a list of random 100 vinyl releases from US 2009 but they cant be from the labels I list so basically the releases are to be from anything but these labels. I keep getting syntax error and 429. Can you adjust it?

That's what Ive written so far

```
import requests  
import time
```

```
key = "zzz"  
secret = "xxx"
```

```
# huge label list (not formatted well)  
banned_labels = ["Alamo Records", "ARC", "Ariola",  
"Arista", "Bang Records", "Bluebird RCA",  
"Camden",  
"Clean Slate", "Columbia", "Culebra", "Disruptor  
Records", "Epic", "Humble Sound Music Group",  
"Humble Sound Records", "Kemosabe Records",  
"LaFace Records", "Legacy", "Monument",  
"Mr. Kanani", "Odd Future LLC", "Palm Tree  
Records", "RCA", "RCA Music Group",  
"RCA Records Label", "RCA Victor", "Records",  
"Relentless Records", "S3",  
"Sick Wid' It Records", "Sony Connect", "Sony  
Music", "Sony Music CG",  
"Sony Music Commercial Music Group", "Sony  
Music Nashville", "Tan Cressida",  
"The Cherry Party", "Un Plan Simple", "Will.i.am  
Music Group", "Windham Hill Records",
```

"XXIM Records", "Zomba", "Zomba Label Group",
 "Arts Music", "Asylum Records", "Atlantic",
 "Big Beat", "Corporate Thugz Entertainment",
 "East West Records", "Elektra",
 "First Night Records", "Fonomusic", "Hispavox",
 "Major Recordings", "Metronome",
 "nsb - NonSolo Blue's", "NVC Arts", "Parlophone
 Label Group", "Rhino/Warner Records",
 "Roadrunner Records", "Run Out Groove", "Sire",
 "Spinnin' Records", "TELDEC",
 "Terror Squad Production", "Warner", "Warner
 Archives", "Warner Music",
 "Warner Music Canada", "Warner Music Central
 Europe", "Warner Music Enterprises",
 "Warner Music France", "Warner Music Group
 Soundtracks", "Warner Music International",
 "Warner Music Nashville", "Warner Music UK",
 "Warner Strategic Marketing", "WEA", "WSM",
 "X5 Music Group", "Almo Sounds", "Angel Records",
 "AVI Records", "Cohiba Records", "Coral",
 "D.J. International Records", "De-Lite Records",
 "Decca", "Decca Broadway", "Deram",
 "Desert Storm Records", "DreamWorks Records",
 "El Cartel Records", "El's Pride Records",
 "Electrola", "EMI", "EP Entertainment", "EQT
 Recordings", "Flatiron Music Group",
 "Geffen/Interscope Records", "Hip-O Select", "His
 Master's Voice", "Imperial",
 "Interscope Capitol Labels Group", "Joombas
 Music Group", "Kalimba Music", "Lost Highway",
 "MCA Records", "Mercury Nashville", "Musidisc",
 "Oriental Star Agencies Ltd", "Pampa",
 "Philips", "PM:AM Recordings", "Polydor",
 "PolyGram", "Polygram Entertainment",
 "Polyphon",
 "Porygon Records", "Republic Corps", "Show Dog
 Nashville", "Signature Sinatra", "Sonet",
 "Spectrum", "Stiff Records", "T-Boy Records",
 "Tamla Motown", "The INC Records",
 "U2 Dot Com", "UCJ", "UMe", "UMG Soundtracks",
 "Universal", "Universal Classics & Jazz",
 "Universal Motown Records Group", "Universal
 Music", "Universal Music Catalogue",
 "Universal Music DVD Video", "Universal Music
 Group International",
 "Universal Music Latin Entertainment", "Universal
 Records", "UTV Records", "Vertigo",
 "Virgin Music Group", "Abbey Road", "Bravado",
 "Capitol Music Group", "Decca Records",

"Def Jam Recordings", "Deutsche Grammophon",
 "Interscope Geffen A&M", "Island Records",
 "Republic Records", "Universal Music Enterprises",
 "Universal Music Group Nashville",
 "Universal Music Publishing Group", "Verve Label
 Group", "Aftermath Entertainment",
 "American Recordings", "Astralwerks", "Blue Note
 Records", "Boominati Worldwide",
 "Brushfire Records", "Capitol Christian Music
 Group", "Capitol Latin",
 "Capitol Records Nashville", "Capitol Records UK",
 "Capitol Records US", "Capitol Studios",
 "Casablanca Records", "Cash Money Records",
 "Darkroom", "Decca Classics",
 "Decca Records US", "Disa Records", "Dreamville",
 "East Iris Studios", "ECM",
 "EDGEOUT Records", "Elias", "EMI North", "EMI
 Records Nashville", "Fame House",
 "Federal Films", "Fiction Records", "Fonovisa",
 "Hyperion Records", "Imperial Distribution",
 "Impulse!", "KidinaKorner", "Lava Records", "LVRN
 Records", "Machete Music",
 "Mad Love and Friends Keep Secrets Records",
 "MCA Nashville", "Mercury KX", "Mercury
 Records",
 "Mercury Studios", "Motown Records", "Motown
 Records UK", "Priority Records",
 "Quality Control Music", "Republic Records: Kids &
 Family", "Shady Records",
 "Spinefarm Records", "Universal Arabic Music",
 "Universal Music Latino",
 "Universal Production Music", "Uptown Records",
 "Verve Forecast", "Verve Records",
 "XO Records", "Young Money", "Arista Records",
 "AWAL", "Columbia Records", "Epic Records",
 "Global Podcast Division", "Legacy Recordings",
 "Masterworks", "Provident Label Group",
 "RCA Records", "RCA Inspiration", "Santa Anna
 Records", "Sony Classical", "Sony Music Latin",
 "Sony Music Vision", "Ultra Records"]

```

url = "https://api.discogs.com/database/search"
params = {
  'year': 2009,
  'format': 'Vinyl',
  'country': 'US',
  'page': 1,
  'per_page': 100,
  'key': key,

```

```

    'secret': secret
}

headers = {
    'User-Agent': 'BadBot/0.1'
}

releases = []

print("Fetching vinyls")

while len(releases) < 100:
    r = requests.get(url, params=params,
headers=headers)
    if r.status_code == 429:
        print("uh oh too many requests hold on...")
        time.sleep(1)

    data = r.json()
    for thing in data['results']:
        label = thing['label'][0]
        if label in banned_labels
            continue

        artist = thing['title'].split(" - ")[0]
        title = thing['title']
        releases.append(artist + " - " + title + " - " +
label)

    params['page'] = params['page'] + 1

print("Got em:")

for rel in releases:
    print(rel)

```

Chat GTP:

"Here's a refined and **corrected version** of your script that:

- Properly paginates through **all results**.
- **Filters by year (2009)**, format (Vinyl), country (US).
- Cross-checks with your **provided list of allowed labels**.
- **Samples 100** random items (instead of 200).

- **Respects Discogs API rate limits** (with a delay).
- **Handles Discogs pagination limits** (max per_page is 100).
- **Fixes common issues** (e.g., artist key isn't directly available in search results).

You will need your own Discogs API key and secret filled in.

python
CopyEdit

```
import requests
import time
import random

# Your Discogs API credentials
CONSUMER_KEY = "zzz" # Replace with
your key
CONSUMER_SECRET = "xxx"

# Banned labels (major +
subsidiaries)
BANNED_LABELS = {
    "Alamo Records", "ARC",
    "Ariola", "Arista", "Bang Records",
    "Bluebird RCA", "Camden",
    "Clean Slate", "Columbia",
    "Culebra", "Disruptor Records",
    "Epic", "Humble Sound Music Group",
    "Humble Sound Records",
    "Kemosabe Records", "LaFace
Records", "Legacy", "Monument",
    "Mr. Kanani", "Odd Future LLC",
    "Palm Tree Records", "RCA", "RCA
Music Group",
    "RCA Records Label", "RCA
Victor", "Records", "Relentless
Records", "S3",
    "Sick Wid' It Records", "Sony
Connect", "Sony Music", "Sony Music
CG",
    "Sony Music Commercial Music
Group", "Sony Music Nashville", "Tan
Cressida",
    "The Cherry Party", "Un Plan
Simple", "Will.i.am Music Group",
    "Windham Hill Records",
```

"XXIM Records", "Zomba", "Zomba Label Group", "Arts Music", "Asylum Records", "Atlantic",
"Big Beat", "Corporate Thugz Entertainment", "East West Records", "Elektra",
"First Night Records",
"Fonomusic", "Hispavox", "Major Recordings", "Metronome",
"nsb - NonSolo Blue's", "NVC Arts", "Parlophone Label Group", "Rhino/Warner Records",
"Roadrunner Records", "Run Out Groove", "Sire", "Spinnin' Records", "TELDEC",
"Terror Squad Production",
"Warner", "Warner Archives", "Warner Music",
"Warner Music Canada", "Warner Music Central Europe", "Warner Music Enterprises",
"Warner Music France", "Warner Music Group Soundtracks", "Warner Music International",
"Warner Music Nashville",
"Warner Music UK", "Warner Strategic Marketing", "WEA", "WSM",
"X5 Music Group", "Almo Sounds",
"Angel Records", "AVI Records",
"Cohiba Records", "Coral",
"D.J. International Records",
"De-Lite Records", "Decca", "Decca Broadway", "Deram",
"Desert Storm Records",
"DreamWorks Records", "El Cartel Records", "El's Pride Records",
"Electrola", "EMI", "EP Entertainment", "EQT Recordings",
"Flatiron Music Group",
"Geffen/Interscope Records",
"Hip-O Select", "His Master's Voice", "Imperial",
"Interscope Capitol Labels Group", "Jombas Music Group",
"Kalimba Music", "Lost Highway",
"MCA Records", "Mercury Nashville", "Musidisc", "Oriental Star Agencies Ltd", "Pampa",

"Philips", "PM:AM Recordings",
"Polydor", "PolyGram", "Polygram
Entertainment", "Polyphon",
"Porygon Records", "Republic
Corps", "Show Dog Nashville",
"Signature Sinatra", "Sonet",
"Spectrum", "Stiff Records", "T-
Boy Records", "Tamla Motown", "The
INC Records",
"U2 Dot Com", "UCJ", "UMe", "UMG
Soundtracks", "Universal",
"Universal Classics & Jazz",
"Universal Motown Records
Group", "Universal Music",
"Universal Music Catalogue",
"Universal Music DVD Video",
"Universal Music Group
International",
"Universal Music Latin
Entertainment", "Universal Records",
"UTV Records", "Vertigo",
"Virgin Music Group", "Abbey
Road", "Bravado", "Capitol Music
Group", "Decca Records",
"Def Jam Recordings", "Deutsche
Grammophon", "Interscope Geffen
A&M", "Island Records",
"Republic Records", "Universal
Music Enterprises", "Universal Music
Group Nashville",
"Universal Music Publishing
Group", "Verve Label Group",
"Aftermath Entertainment",
"American Recordings",
"Astralwerks", "Blue Note Records",
"Boominati Worldwide",
"Brushfire Records", "Capitol
Christian Music Group", "Capitol
Latin",
"Capitol Records Nashville",
"Capitol Records UK", "Capitol
Records US", "Capitol Studios",
"Casablanca Records", "Cash
Money Records", "Darkroom", "Decca
Classics",
"Decca Records US", "Disa
Records", "Dreamville", "East Iris
Studios", "ECM",

```

    "EDGEOUT Records", "Elias", "EMI
North", "EMI Records Nashville",
"Fame House",
    "Federal Films", "Fiction
Records", "Fonovisa", "Hyperion
Records", "Imperial Distribution",
    "Impulse!", "KidinaKorner",
"Lava Records", "LVRN Records",
"Machete Music",
    "Mad Love and Friends Keep
Secrets Records", "MCA Nashville",
"Mercury KX", "Mercury Records",
    "Mercury Studios", "Motown
Records", "Motown Records UK",
"Priority Records",
    "Quality Control Music",
"Republic Records: Kids & Family",
"Shady Records",
    "Spinefarm Records", "Universal
Arabic Music", "Universal Music
Latino",
    "Universal Production Music",
"Uptown Records", "Verve Forecast",
"Verve Records",
    "XO Records", "Young Money",
"Arista Records", "AWAL", "Columbia
Records", "Epic Records",
    "Global Podcast Division",
"Legacy Recordings", "Masterworks",
"Provident Label Group",
    "RCA Records", "RCA
Inspiration", "Santa Anna Records",
"Sony Classical", "Sony Music
Latin",
    "Sony Music Vision", "Ultra
Records"
}

BASE_URL = "https://api.discogs.com"
SEARCH_URL =
f"{BASE_URL}/database/search"
HEADERS = {'User-Agent':
'VinylFinderBot/1.0'}

params = {
    'year': 2023,
    'format': 'Vinyl',

```

```

        'country': 'US',
        'per_page': 100,
        'page': 1,
        'key': CONSUMER_KEY,
        'secret': CONSUMER_SECRET
    }

    release_ids = set()
    valid_results = []

    print("Collecting candidate vinyl
    releases from Discogs...")

    # Phase 1: Collect release IDs
    while len(valid_results) < 500 and
    params['page'] <= 50: # Limit to 50
    pages max
        print(f"Fetching page
        {params['page']}...")
        try:
            response =
            requests.get(SEARCH_URL,
            params=params, headers=HEADERS)
            if response.status_code ==
            429:
                print("Rate limited.
                Waiting...")
                time.sleep(60)
                continue
            elif response.status_code !=
            200:
                print(f"Error
                {response.status_code}:
                {response.text}")
                break

            results =
            response.json().get('results', [])
            if not results:
                break

            for result in results:
                release_id =
                result.get('id')
                labels =
                result.get('label', [])

```

```

        if not any(label.strip()
in BANNED_LABELS for label in
labels):
            if release_id and
release_id not in release_ids:

release_ids.add(release_id)

            params['page'] += 1
            time.sleep(1.1)

        except Exception as e:
            print(f"Request failed:
{e}")
            break

print(f"Found {len(release_ids)}
candidate releases. Now fetching
full details...")

# Phase 2: Fetch release details
release_ids = list(release_ids)
random.shuffle(release_ids)

for release_id in release_ids:
    try:
        release_url =
f"{BASE_URL}/releases/{release_id}"
        response =
requests.get(release_url,
headers=HEADERS)
        if response.status_code ==
429:
            print("Rate limited.
Waiting...")
            time.sleep(60)
            continue
        elif response.status_code !=
200:
            continue

        data = response.json()

        labels = [l['name'] for l in
data.get('labels', [])]
        if any(label in
BANNED_LABELS for label in labels):
            continue

```

```

        artists = ",
".join(a['name'] for a in
data.get('artists', []))
        title = data.get('title',
'Unknown Title')
        label = ", ".join(labels) if
labels else "Unknown Label"

valid_results.append(f"{artists} -
{title} - {label}")

        if len(valid_results) >=
100:
            break

        time.sleep(1.1)

    except Exception as e:
        print(f"Error fetching
release {release_id}: {e}")
        continue

# Output results
print("\n--- 100 Independent US
Vinyl Releases from 2023 ---\n")
for i, entry in
enumerate(valid_results, 1):
    print(f"{i}. {entry}")

```

Output of the code (with first 5 releases and it goes on up to 150):

```

Fetching page 1...
Fetching page 2...
Fetching page 3...
Fetching page 4...
Fetching page 5...
Fetching page 6...
Fetching page 7...
Fetching page 8...
Fetching page 9...
Fetching page 10...
Fetching page 11...
Fetching page 12...
Fetching page 13...
Fetching page 14...
Fetching page 15...
Fetching page 16...
Fetching page 17...
Fetching page 18...

```

```

Fetching page 19...
Fetching page 20...
Fetching page 21...
Fetching page 22...
Fetching page 23...
Fetching page 24...
Fetching page 25...
Fetching page 26...
Fetching page 27...
Fetching page 28...
Fetching page 29...
Fetching page 30...
Fetching page 31...
Fetching page 32...
Fetching page 33...
Fetching page 34...
Fetching page 35...
Fetching page 36...
Fetching page 37...
Fetching page 38...
Fetching page 39...
Fetching page 40...
Fetching page 41...
Fetching page 42...
Fetching page 43...
Fetching page 44...
Fetching page 45...
Fetching page 46...
Fetching page 47...
Fetching page 48...
Fetching page 49...
Fetching page 50...
Found 3665 candidate releases. Now
fetching full details...
Rate limited. Waiting...
Rate limited. Waiting...
Rate limited. Waiting...
Rate limited. Waiting...

--- 100 Independent US Vinyl Releases
from 2023 ---

1. Ryan McKay (3) - ...And The Broken
Brains - Alleyworks Records
2. JD Eicher - A Collection Vol. 2 - Not
On Label (JD Eicher Self-released)
3. During - During - Chunklet Industries
4. Leather Duchess - Fatal Moon - Revolt
Vinyl Records
5. Thomas Carnacki - Rencontre Fortuite -
Alethiometer Records

```

3. Code for major labels' releases (I would change the year of the correct code, 2009 and 2023):

Me: I've been writing this code that needs to give me a list of random 100 vinyl US releases from 2009, and I keep getting a syntax error and 429. This is the newest version of my code, and it gives me a syntax error. Can you add a time delay so the code goes through all the releases from discogs while respecting the rate limit (no error 429)

This is the code:

```
import requests
import time
import random

# my discogs
CONSUMER_KEY = "zzz" # Replace with your key
CONSUMER_SECRET = "xxx"

# subsidiaries of majors
ALLOWED_LABELS = {
    "Alamo Records", "ARC", "Ariola", "Arista", "Bang
Records", "Bluebird RCA",
    "Camden", "Clean Slate", "Columbia", "Culebra",
    "Disruptor Records",
    "Epic", "Humble Sound Music Group", "Humble
Sound Records", "Kemosabe Records",
    "LaFace Records", "Legacy", "Monument", "Mr.
Kanani", "Odd Future LLC",
    "Palm Tree Records", "RCA", "RCA Music Group",
    "RCA Records Label",
    "RCA Victor", "Records", "Relentless Records",
    "S3", "Sick Wid' It Records",
    "Sony Connect", "Sony Music", "Sony Music CG",
    "Sony Music Commercial Music Group",
    "Sony Music Nashville", "Tan Cressida", "The
Cherry Party", "Un Plan Simple",
    "Will.i.am Music Group", "Windham Hill
Records", "XXIM Records", "Zomba",
    "Zomba Label Group", "Arts Music", "Arts Music
Inc", "Asylum Records",
    "Atlantic", "Big Beat", "Corporate Thugz
Entertainment", "East West Records",
    "Elektra", "First Night Records", "Fonomusic",
    "Hispavox", "Major Recordings",
    "Metronome", "nsb - NonSolo Blue's", "NVC
Arts", "Parlophone Label Group",
    "Rhino/Warner Records", "Roadrunner
Records", "Run Out Groove", "Sire",
```

"Spinnin' Records", "TELDEC", "Terror Squad
 Production", "Warner", "Warner Archives",
 "Warner Music", "Warner Music Canada",
 "Warner Music Central Europe",
 "Warner Music Enterprises", "Warner Music
 France", "Warner Music Group Soundtracks",
 "Warner Music International", "Warner Music
 Nashville", "Warner Music UK",
 "Warner Strategic Marketing", "WEA", "WSM",
 "X5 Music Group", "Almo Sounds",
 "Angel Records", "AVI Records", "Cohiba
 Records", "Coral", "D.J. International Records",
 "De-Lite Records", "Decca", "Decca Broadway",
 "Deram", "Desert Storm Records",
 "DreamWorks Records", "El Cartel Records",
 "El's Pride Records", "Electrola",
 "EMI", "EP Entertainment", "EQT Recordings",
 "Flatiron Music Group",
 "Geffen/Interscope Records", "Hip-O Select",
 "His Master's Voice", "Imperial",
 "Interscope Capitol Labels Group", "Jombas
 Music Group", "Kalimba Music",
 "Lost Highway", "MCA Records", "Mercury
 Nashville", "Musidisc",
 "Oriental Star Agencies Ltd", "Pampa", "Philips",
 "PM:AM Recordings", "Polydor",
 "PolyGram", "Polygram Entertainment",
 "Polyphon", "Porygon Records", "Republic Corps",
 "Show Dog Nashville", "Signature Sinatra",
 "Sonet", "Spectrum", "Stiff Records",
 "T-Boy Records", "Tamla Motown", "The INC
 Records", "U2 Dot Com", "UCJ", "UMe",
 "UMG Soundtracks", "Universal", "Universal
 Classics & Jazz", "Universal Motown Records
 Group",
 "Universal Music", "Universal Music Catalogue",
 "Universal Music DVD Video",
 "Universal Music Group International",
 "Universal Music Latin Entertainment",
 "Universal Records", "UTV Records", "Vertigo",
 "Virgin Music Group"
 }

BASE_URL = "https://api.discogs.com"

```

params = {
  'year': 2009,
  'format': 'Vinyl',

```



```

    'country': 'US',
    'per_page': 100,
    'page': 1,
    'key': CONSUMER_KEY,
    'secret': CONSUMER_SECRET
}

release_ids = set()

print("Searching for matching vinyl releases from
2023...")

# sample
release_ = list(release_)
random.shuffle(release_)

print("Fetching release details...")

for release_id in release_ids:
    try:
        release_url =
f"{BASE_URL}/releases/{release_id}"
        response = requests.get(release_url,
headers=HEADERS)
        if response.status_code == 429:
            print("Rate limited. Waiting...")
            time.sleep(60)
            continue
        elif response.status_code != 200:
            continue

        data = response.json()

        artists = ", ".join(artist['name'] for artist in
data.get('artists', []))
        title = data.get('title', 'Unknown Title')
        genres = ", ".join(data.get('genres', [])) or
"Unknown Genre"

        detailed_releases.append(f"{artists} - {title} -
{genres}")

        if len(detailed_releases) >= 100:
            break

# output
print(f"\n--- 100 Random Vinyl Releases from
2009 ---\n")

```

```
for i, line in enumerate(detailed_releases, 1):
    print(f"{i}. {line}")
```

Chat GTP:

Absolutely — I can help with that! The **429 error** is caused by **rate limiting**, which happens when too many requests hit the Discogs API in a short time. We'll fix that by adding a **time delay** between requests and wrapping them in a **retry loop** with exponential backoff.

Let's also take care of the **syntax error** you mentioned — though I'll need to see the exact code you're using to point out the exact problem.

```
python
CopyEdit
import requests
import time
import random

# Your Discogs API credentials
CONSUMER_KEY = "zzz" # Replace with
your key
CONSUMER_SECRET = "xxx"

# Your list of allowed labels
ALLOWED_LABELS = {
    "Alamo Records", "ARC",
    "Ariola", "Arista", "Bang Records",
    "Bluebird RCA",
    "Camden", "Clean Slate",
    "Columbia", "Culebra", "Disruptor
Records",
    "Epic", "Humble Sound Music
Group", "Humble Sound Records",
    "Kemosabe Records",
    "LaFace Records", "Legacy",
    "Monument", "Mr. Kanani", "Odd
Future LLC",
    "Palm Tree Records", "RCA", "RCA
Music Group", "RCA Records Label",
    "RCA Victor", "Records",
    "Relentless Records", "S3", "Sick
Wid' It Records",
    "Sony Connect", "Sony Music",
    "Sony Music CG", "Sony Music
Commercial Music Group",
```

"Sony Music Nashville", "Tan
Cressida", "The Cherry Party", "Un
Plan Simple",
"Will.i.am Music Group",
"Windham Hill Records", "XXIM
Records", "Zomba",
"Zomba Label Group", "Arts
Music", "Arts Music Inc", "Asylum
Records",
"Atlantic", "Big Beat",
"Corporate Thugz Entertainment",
"East West Records",
"Elektra", "First Night
Records", "Fonomusic", "Hispavox",
"Major Recordings",
"Metronome", "nsb - NonSolo
Blue's", "NVC Arts", "Parlophone
Label Group",
"Rhino/Warner Records",
"Roadrunner Records", "Run Out
Groove", "Sire",
"Spinnin' Records", "TELDEC",
"Terror Squad Production", "Warner",
"Warner Archives",
"Warner Music", "Warner Music
Canada", "Warner Music Central
Europe",
"Warner Music Enterprises",
"Warner Music France", "Warner Music
Group Soundtracks",
"Warner Music International",
"Warner Music Nashville", "Warner
Music UK",
"Warner Strategic Marketing",
"WEA", "WSM", "X5 Music Group",
"Almo Sounds",
"Angel Records", "AVI Records",
"Cohiba Records", "Coral", "D.J.
International Records",
"De-Lite Records", "Decca",
"Decca Broadway", "Deram", "Desert
Storm Records",
"DreamWorks Records", "El Cartel
Records", "El's Pride Records",
"Electrola",
"EMI", "EP Entertainment", "EQT
Recordings", "Flatiron Music Group",

```

    "Geffen/Interscope Records",
    "Hip-O Select", "His Master's
Voice", "Imperial",
    "Interscope Capitol Labels
Group", "Jombas Music Group",
    "Kalimba Music",
    "Lost Highway", "MCA Records",
    "Mercury Nashville", "Musidisc",
    "Oriental Star Agencies Ltd",
    "Pampa", "Philips", "PM:AM
Recordings", "Polydor",
    "PolyGram", "Polygram
Entertainment", "Polyphon", "Porygon
Records", "Republic Corps",
    "Show Dog Nashville", "Signature
Sinatra", "Sonet", "Spectrum",
    "Stiff Records",
    "T-Boy Records", "Tamla Motown",
    "The INC Records", "U2 Dot Com",
    "UCJ", "UMe",
    "UMG Soundtracks", "Universal",
    "Universal Classics & Jazz",
    "Universal Motown Records Group",
    "Universal Music", "Universal
Music Catalogue", "Universal Music
DVD Video",
    "Universal Music Group
International", "Universal Music
Latin Entertainment",
    "Universal Records", "UTV
Records", "Vertigo", "Virgin Music
Group"
}

BASE_URL = "https://api.discogs.com"
SEARCH_URL =
f"{BASE_URL}/database/search"
HEADERS = {'User-Agent':
'VinylFinderBot/1.0'}

params = {
    'year': 2009,
    'format': 'Vinyl',
    'country': 'US',
    'per_page': 100,
    'page': 1,
    'key': CONSUMER_KEY,
    'secret': CONSUMER_SECRET

```

```

}

release_ids = set()
detailed_releases = []

print("Searching for matching vinyl
releases from 2023...")

# Phase 1: Search and collect
release IDs
while len(release_ids) < 200:  #
Slight overfetch
    print(f"Fetching page
{params['page']}...")
    try:
        response =
requests.get(SEARCH_URL,
params=params, headers=HEADERS)
        if response.status_code ==
429:
            print("Rate limited.
Waiting...")
            time.sleep(60)
            continue
        elif response.status_code !=
200:
            print(f"Error
{response.status_code}:
{response.text}")
            break

        results =
response.json().get('results', [])
        if not results:
            break

        for result in results:
            labels =
result.get('label', [])
            if any(label.strip() in
ALLOWED_LABELS for label in labels):
                release_id =
result.get('id')
                if release_id:
release_ids.add(release_id)

            params['page'] += 1

```

```

        time.sleep(1.2)

    except Exception as e:
        print(f"Request failed:
{e}")
        break

print(f"Collected {len(release_ids)}
matching release IDs.")

# Phase 2: Get details for a random
sample of releases
release_ids = list(release_ids)
random.shuffle(release_ids)

print("Fetching release details...")

for release_id in release_ids:
    try:
        release_url =
f"{BASE_URL}/releases/{release_id}"
        response =
requests.get(release_url,
headers=HEADERS)
        if response.status_code ==
429:
            print("Rate limited.
Waiting...")
            time.sleep(60)
            continue
        elif response.status_code !=
200:
            continue

        data = response.json()

        artists = ",
".join(artist['name'] for artist in
data.get('artists', []))
        title = data.get('title',
'Unknown Title')
        genres = ",
".join(data.get('genres', [])) or
"Unknown Genre"

detailed_releases.append(f"{artists}
- {title} - {genres}")

```

```

        if len(detailed_releases) >=
100:
            break

        time.sleep(1.2)

    except Exception as e:
        print(f"Error fetching
release {release_id}: {e}")
        continue

# Final Output
print(f"\n--- 100 Random Vinyl
Releases from 2009 ---\n")
for i, line in
enumerate(detailed_releases, 1):
    print(f"{i}. {line}")

```

Output (with first 5 releases, it goes to 150):

```

Searching for matching vinyl releases from 2023...
Fetching page 1...
Fetching page 2...
Fetching page 3...
Fetching page 4...
Fetching page 5...
Fetching page 6...
Fetching page 7...
Fetching page 8...
Fetching page 9...
Fetching page 10...
Fetching page 11...
Fetching page 12...
Fetching page 13...
Fetching page 14...
Fetching page 15...
Fetching page 16...
Fetching page 17...
Fetching page 18...
Fetching page 19...
Fetching page 20...
Fetching page 21...
Fetching page 22...
Fetching page 23...
Fetching page 24...
Fetching page 25...
Fetching page 26...
Fetching page 27...
Fetching page 28...

```

Fetching page 29...
Fetching page 30...
Fetching page 31...
Fetching page 32...
Fetching page 33...
Fetching page 34...
Fetching page 35...
Fetching page 36...
Fetching page 37...
Fetching page 38...
Fetching page 39...
Fetching page 40...
Fetching page 41...
Fetching page 42...
Fetching page 43...
Fetching page 44...
Fetching page 45...
Fetching page 46...
Fetching page 47...
Fetching page 48...
Fetching page 49...
Fetching page 50...
Fetching page 51...
Fetching page 52...
Fetching page 53...
Fetching page 54...
Fetching page 55...
Fetching page 56...
Fetching page 57...
Fetching page 58...
Fetching page 59...
Fetching page 60...
Fetching page 61...
Fetching page 62...
Fetching page 63...
Fetching page 64...
Fetching page 65...
Fetching page 66...
Fetching page 67...
Fetching page 68...
Fetching page 69...
Fetching page 70...
Fetching page 71...
Fetching page 72...
Fetching page 73...
Fetching page 74...
Fetching page 75...
Fetching page 76...
Fetching page 77...
Fetching page 78...
Fetching page 79...


```
Fetching page 80...
Fetching page 81...
Fetching page 82...
Fetching page 83...
Fetching page 84...
Fetching page 85...
Collected 200 matching release IDs.
Fetching release details...
Rate limited. Waiting...
Rate limited. Waiting...
Rate limited. Waiting...
Rate limited. Waiting...
```

```
--- 100 Random Vinyl Releases from 2023 ---
```

1. Talking Heads - Naked - Rock
2. Ava Max - Diamonds & Dancefloors - Electronic, Pop
3. Natalie Imbruglia - Left Of The Middle - Rock, Pop
4. Daughter (2) - Stereo Mind Game - Rock
5. Carole King - Home Again - Rock