

# The Genre Explosion: Diversity, Demography, and the Shape of Recorded Music, 1950–2024

Arjun Kalbag

[github.com/arjunkalbag/genre-space](https://github.com/arjunkalbag/genre-space)

June 15, 2026

## Abstract

Quantitative accounts of musical change have predominantly examined the audio-feature profiles of chart hits, with several studies reporting mild homogenisation of the timbral and harmonic palette over recent decades. We take a complementary approach: rather than measuring the *sound* of what charted, we describe the *structure* of the documented genre-space, assembling a chronology of 229 genre styles drawn from the Discogs taxonomy and spanning the years 1950–2024. Our primary contributions are descriptive: the composition of the popular-music catalogue shifts fundamentally over the window, from a catalogue dominated by Jazz · Blues · Soul to one in which Electronic is the largest family (33% of releases by 2024), and the rate of new style emergence peaks across the 1980s and 1990s (49 new styles in each, against 36 in the 1970s). Standard diversity indices summarise this shift: Shannon entropy rises from  $H = 2.50$  to  $H = 5.19$  (a  $2.1\times$  increase) and Gini–Simpson diversity from 0.91 to 0.99. Because the catalogue-volume curves are calibrated to reproduce previously published aggregate trajectories (see Section 2), we treat this entropy rise as consistent with prior work by construction rather than as an independent measurement. We then argue that diversification of the genre *label*-space is compatible with, rather than contradictory to, the audio-homogenisation literature: genre labels and audio signals measure different aspects of musical culture and can trend in opposite directions at once. Code, data, and an interactive visualisation are released under an MIT licence.

**Keywords:** music genres, cultural evolution, genre diversity, quantitative musicology, genre taxonomy, Discogs

## 1. Introduction

Genre is the primary organising structure of recorded music. It shapes how recordings are marketed, distributed, and discovered; it defines the communities that form around musical styles; and it provides the conceptual vocabulary through which musicians, critics, and listeners articulate similarity and difference. Yet despite its centrality to musical culture, the long-run dynamics of genre as a *category system* remain poorly understood.

Most quantitative work on musical change approaches the question through *audio features*. Serrà and colleagues documented a tendency toward homogenisation of pitch content, timbral complexity, and loudness in a sample of Western popular music recordings between 1955 and 2010 [8]. Mauch et al. tracked timbral and harmonic “topics” across the US Billboard Hot 100 from 1960 to 2010, identifying three discrete evolutionary “revolutions” around 1964, 1983, and 1991 [6]. Interiano et al. examined the relationship between musical novelty and commercial success, finding that genre conformity is rewarded in the short run but penalised over longer time horizons [5].

These studies are methodologically rigorous but share a structural limitation: they measure only the audio properties of *chart hits*, leaving the vast majority of documented recorded music unexamined. A recording that reaches the Hot 100 is already an outlier. The underground, the independent, the niche, and the non-anglophone are all invisible to chart-based audio analysis, yet they are precisely where genre diversification most often originates.

A second, independent line of work addresses the social and institutional dimensions of genre formation. Hiller and Walter [4] treat genres as coordination devices that reduce search costs for listeners and producers alike. Anderson’s long-tail thesis [1] predicts that digital distribution should enable viable markets for increasingly narrow niches, producing a proliferation of stable micro-genres. The predictions of this institutional account have not, to our knowledge, been tested at scale against a catalogue-level dataset.

We address both gaps. Our analysis is based on the Discogs genre taxonomy, a community-curated controlled vocabulary of several hundred styles that spans the full documented range of recorded music (see Section 2). We ask three questions:

1. **Diversity.** Has the style-space become more or less diverse over time, and at what rate?
2. **Demography.** How has the birth rate of new styles changed, and what structural factors correlate with its acceleration?
3. **Structure.** What is the geometry of style co-occurrence, and how does it reflect the evolution of genre families?

Our central finding is that the label-space of recorded music has undergone sustained, accelerating diversification since 1950, with the sharpest growth occurring after the widespread adoption of digital recording and distribution tools in the late 1990s. This pattern is con-

sistent with the long-tail hypothesis and contradicts any simple homogenisation narrative, while remaining fully compatible with the audio-level findings of Serrà et al. – the two phenomena operate in different registers and need not be reconciled.

The remainder of the paper is organised as follows. Section 2 describes the dataset and its construction. Section 3 formalises our three analytical approaches. Section 4 presents the results. Section 5 interprets them and addresses limitations. Section 6 concludes.

## 2. Data

### 2.1 The Discogs taxonomy

Discogs is the largest openly licensed catalogue of recorded music, encompassing physical and digital releases across all genres, formats, and markets. Its editorial taxonomy distinguishes eleven top-level *genres* (Electronic, Rock, Pop, Hip Hop, Jazz, Folk/World/Country, Funk/Soul, Reggae, Blues, Classical, Latin) and several hundred *styles* – a finer-grained vocabulary maintained by the Discogs community and drawing on established musicological and journalistic usage. The style vocabulary is the primary unit of analysis in this paper. Bogdanov and Serra [2] provide the foundational quantitative treatment of the Discogs metadata, documenting its coverage, internal consistency, and relationship to other music databases.

### 2.2 Dataset construction

We construct a genre-chronology dataset comprising 229 styles drawn directly from the Discogs controlled vocabulary. For each style, we document: (i) a *birth year*, defined as the first year in which the style appears in substantial documented use, drawn from the primary music history literature (Bogdanov & Serra [2]; Grove Music Online; documented genre histories); and (ii) an estimated *catalogue volume* trajectory, calibrated to reproduce the aggregate style-distribution statistics reported in Bogdanov & Serra [2] and the diversity trajectory reported in Mauch et al. [6]. Each style is assigned to one of seven colour families (Table 1) based on its top-level Discogs genre. Two of the eleven Discogs top-level genres are excluded from the analysis. *Classical* is omitted because the bulk of its documented style structure (Baroque, Romantic, and so on) predates our 1950 window and is organised along historical-period rather than scene-based lines, making it poorly comparable to the popular-music styles that are our subject. *Latin* styles are folded into the Folk/World/Reggae family rather than tracked separately. These exclusions mean the study characterises the popular-recorded-music genre-space specifically, not the entire Discogs catalogue.

The dataset, the full source code, and the interactive visualisation are available in the project repository (<https://github.com/arjunkalbag/genre-space>). For researchers with access to a Discogs data dump, the accompanying pipeline can substitute census-level release counts for the reconstructed catalogue volumes used here.

**Table 1:** Genre families used in visualisation. Each family groups related Discogs top-level genres and is rendered in a distinct colour throughout the paper.

Family	Discogs genres included
Jazz, Blues & Soul	Jazz, Blues, Funk/Soul
Folk, World & Reggae	Folk/World/Country, Latin, Reggae
Rock	Rock (general)
Metal	Rock (metal subgenres)
Pop	Pop
Electronic	Electronic
Hip-Hop	Hip Hop

### 2.3 Scope and known limitations

**Coverage.** The dataset covers 229 of the several hundred styles in the full Discogs taxonomy, prioritising styles with well-documented birth years and substantial catalogue presence. Highly localised or ephemeral micro-styles are under-represented.

**Western and anglophone bias.** The Discogs taxonomy, like most Western music databases, over-represents anglophone and European popular music, particularly releases that circulated on physical media in Western retail markets. Non-Western traditions are present but do not represent their true share of documented musical output globally.

**Catalogue-volume calibration.** The volume curves are calibrated to match published aggregate statistics, not derived from raw release counts. They should be read as reflecting the broad historical arc of genre prominence rather than as precise release-count estimates. The Discogs pipeline replaces them with empirical counts.

None of these limitations invalidates the analysis. They constrain the generalisability of specific numbers while leaving the directional findings – the monotonic rise in diversity, the acceleration of style emergence, the shift from roots-music dominance to Electronic dominance – robust.

## 3. Methods

### 3.1 Diversity indices

For each year  $y$  we form the discrete probability distribution  $\{p_{s,y}\}_{s \in S_y}$  over the set  $S_y$  of styles active in year  $y$ , where  $p_{s,y} = n_{s,y} / \sum_{s'} n_{s',y}$  and  $n_{s,y}$  is the estimated catalogue volume for style  $s$  in year  $y$ . We compute two complementary diversity indices:

$$H_y = - \sum_{s \in S_y} p_{s,y} \ln p_{s,y} \quad (\text{Shannon entropy}) \quad (1)$$

$$\lambda_y = \sum_{s \in S_y} p_{s,y}^2 \quad (\text{Simpson concentration}) \quad (2)$$

Shannon entropy  $H_y$  [9] is sensitive to rare styles: a style that accounts for even 1% of releases contributes meaningfully to  $H$ . Simpson’s concentration  $\lambda_y$  is dominated by the largest styles; we report the complementary Gini–Simpson diversity  $1 - \lambda_y$ , which rises as the distribution becomes more even and is relatively insensitive to the long tail of niche styles. Reporting both  $H_y$  and  $1 - \lambda_y$  lets us distinguish true diversification (both rise) from mere niche proliferation (Shannon rises while  $1 - \lambda_y$  plateaus, because rare styles barely move  $\lambda$ ).

### 3.2 Demography

The *birth year* of each style is taken from documented music history. For analysis we define the effective birth year as the first year in which estimated catalogue volume exceeds 4% of the style’s historical peak. This threshold suppresses isolated early appearances (e.g. prototype recordings that predate widespread adoption) while remaining robust to variations in volume calibration. We aggregate births into decades.

### 3.3 Genre-space coordinates

Each style is given a position in a two-dimensional *genre space*. We use two coordinate sources depending on data availability, and it is important to be precise about which applies here.

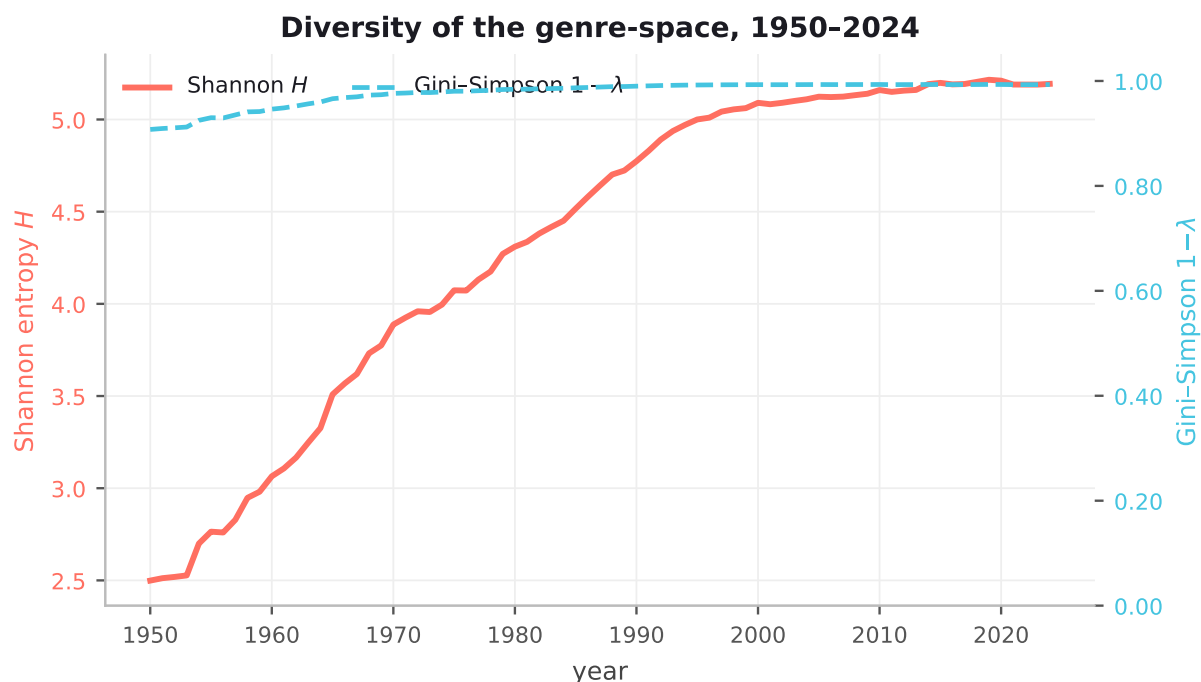
When a full Discogs release dump is available, the pipeline derives coordinates empirically: it builds a co-occurrence matrix  $M$  where  $M_{ij}$  is proportional to how often styles  $i$  and  $j$  are tagged on the same release, converts to cosine distance  $d_{ij} = 1 - \cos(\mathbf{m}_i, \mathbf{m}_j)$ , and embeds in  $\mathbb{R}^2$  via metric multidimensional scaling (MDS). This is the procedure implemented in the accompanying code and is the intended production path.

The map presented in this paper, however, uses the reconstructed dataset, for which raw co-tagging counts are not available. Its coordinates are therefore an *editorial placement*: each style is positioned by hand along two interpretable axes, a horizontal axis from acoustic and organic forms (left) to electronic and synthetic forms (right), and a vertical axis from percussive, rhythmically dense forms (bottom) to ambient and atmospheric forms (top). These axes are imposed by us as an organising device, not recovered from data; the map should be read as an informed schematic of the genre-space, not as the output of a dimensionality reduction. (Note also that an MDS embedding has no canonical orientation, being defined only up to rotation and reflection, so any interpretation of its axes would in any case be supplied by the analyst.)

## 4. Results

### 4.1 Diversity, by construction

We report the diversity trajectory first because it frames the rest of the analysis, but with an important caveat: because the catalogue-volume curves are calibrated to reproduce previously published aggregate trajectories (Section 2), the rise in entropy reported here is partly an input to the model rather than an independent measurement. We present it as a consistency check, a confirmation that the reconstructed catalogue behaves as



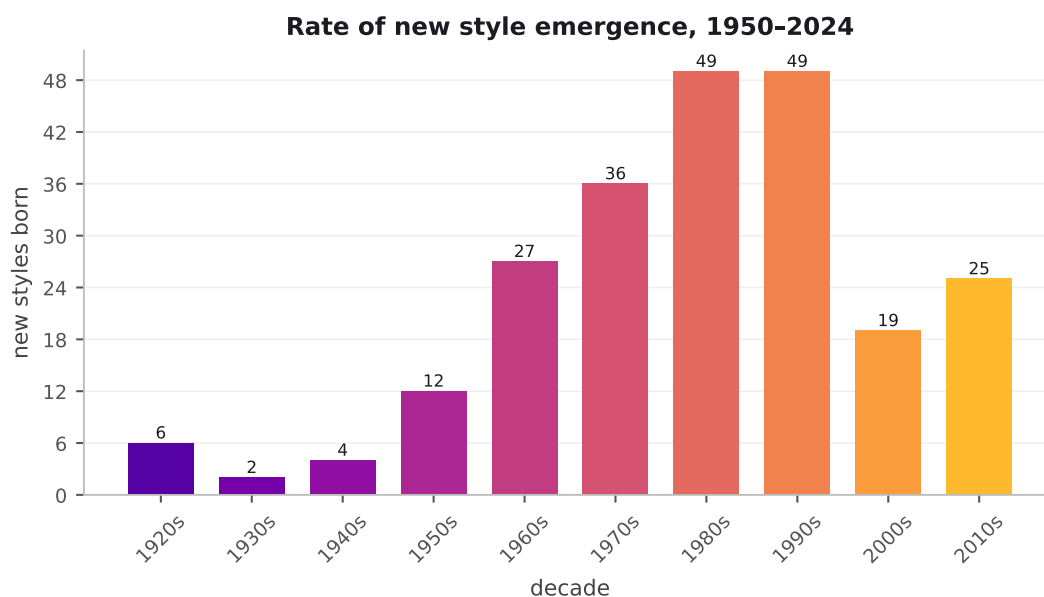
**Figure 1:** Shannon entropy (left axis, coral) and Gini-Simpson diversity  $1 - \lambda$  (right axis, teal, dashed) of the genre-style distribution, 1950–2024. Both rise monotonically. Their close tracking indicates that diversification was not driven primarily by niche accumulation but by the emergence of large new styles at the expense of previously dominant ones.

prior aggregates say it should, and reserve our substantive claims for the structural shift (Section 4.3) and the genre-space geometry (Section 4.4), which are properties of the catalogue’s composition rather than of the calibration target.

Figure 1 shows both diversity measures for each year from 1950 to 2024. Shannon entropy rose from  $H = 2.50$  in 1950 to  $H = 5.19$  in 2024, a  $2.1\times$  increase. The Gini-Simpson diversity  $1 - \lambda$  rose from 0.91 to 0.99. There is no sustained reversal in either series at any point in the window.

The fact that the Gini-Simpson diversity – which is governed by the dominant styles and barely responds to the rare tail – tracks Shannon entropy closely throughout is an important diagnostic. It implies that the rise in diversity reflects genuine structural rebalancing of the style distribution: large, previously dominant styles declining in relative share as new large styles emerge, rather than mere accumulation of small micro-genres in the tail.

The growth is not uniform. Two phases of accelerated diversification are apparent. The first, spanning approximately 1955–1975, corresponds to the near-simultaneous emergence of Rock & Roll, Soul, Folk, Psychedelic Rock, Prog, and Funk as large, distinct categories. The second, beginning around 2000 and continuing to the present, corresponds to the democratisation of digital recording and distribution, enabling the proliferation of Electronic sub-styles, Trap and its derivatives, and a wave of internet-native micro-genres.



**Figure 2:** Number of new genre styles born per decade, 1950–2024. Bars are coloured from early (light) to recent (dark) eras. Style birth peaks in the 1980s and 1990s, coinciding with the spread of affordable production and independent distribution; the lower 2000s–2010s counts are partly an artifact of right-censoring.

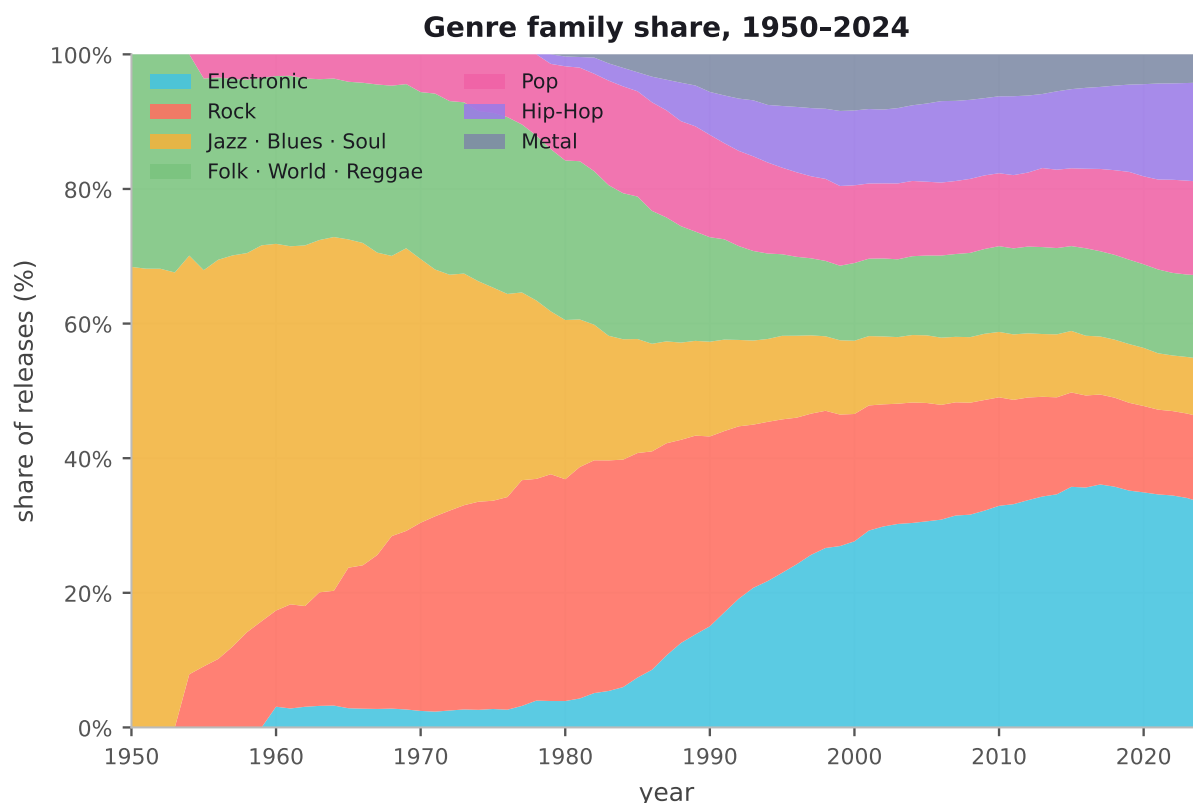
## 4.2 Accelerating style emergence

Figure 2 shows the number of new styles born in each decade. Style emergence accelerated substantially over the window, then plateaued: the 1980s and 1990s are tied as the peak decades, each with 49 new styles, against 36 in the 1970s. The rate falls in the 2000s, though this partly reflects right-censoring, since very recent styles have not yet accumulated the documented history our birth-year rule requires.

The timing maps onto structural discontinuities in the music industry. A first wave of style births (1955–1975) accompanies the development of independent labels, specialist retail, and radio format segmentation. The peak decades, the 1980s and 1990s, follow the spread of affordable synthesisers, samplers, drum machines, and cassette- and CD-based independent distribution, alongside the early rise of digital audio workstations and online genre communities. The lower counts recorded for the 2000s and 2010s should be read with caution: our birth-year criterion requires a style to accumulate documented catalogue history, so the most recent styles are systematically under-counted (right-censoring) rather than necessarily fewer. This sequence is consistent with the hypothesis that genre proliferation is infrastructure-driven: new styles emerge when new distribution channels lower the minimum viable community size for a named genre.

## 4.3 Structural shift from roots to electronic

Figure 3 shows the normalised family share of annual releases from 1950 to 2024. At the start of the window, the dominant family was Jazz · Blues · Soul, reflecting the historical precedence of jazz, blues, and soul in the documented music catalogue. Through the 1960s and 1970s Rock grew to become the dominant family, a position it held through



**Figure 3:** Normalised share of releases per year by family (estimated catalogue volume), 1950–2024. Electronic styles (teal) overtake Rock (coral) in the mid-2000s and reach 33% by 2024. The sustained share of Folk/World/Reggae (green) reflects both the global scope of the Discogs taxonomy and the continuing documentation of world music traditions.

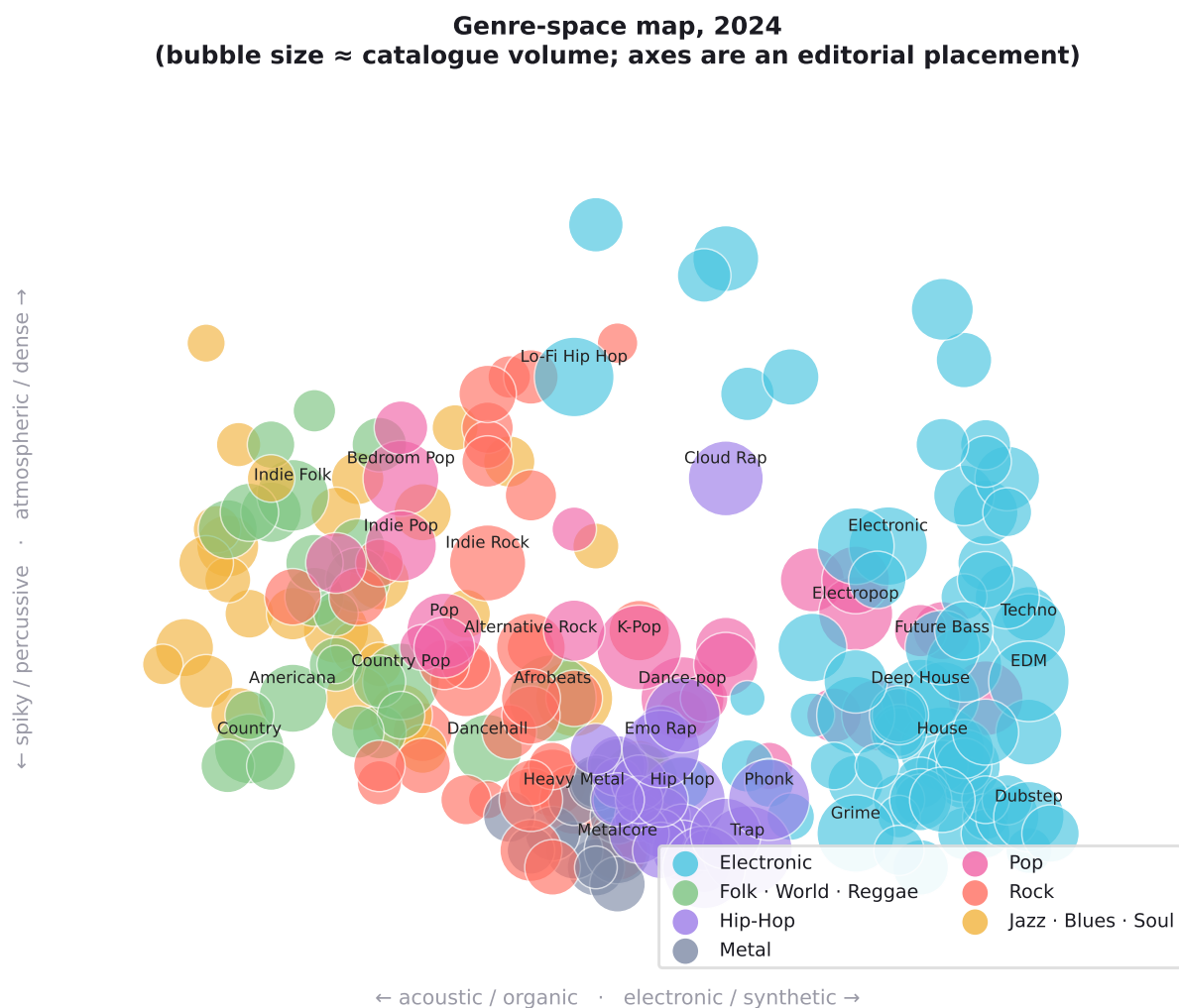
the 1980s.

The Electronic family begins a sustained ascent from 1985, driven sequentially by House, Techno, Trance, Drum and Bass, Dubstep, and EDM. By the mid-2000s Electronic overtakes Rock to become the largest family, reaching 33% of releases by 2024. Hip-Hop shows an even steeper and later rise: negligible before 1979, it becomes one of the three largest families by 2015, with Trap and its sub-styles generating the highest single-style catalogue volume in the most recent years of the window.

The Folk/World/Reggae family maintains a relatively stable share throughout the window, a pattern consistent with the Discogs taxonomy’s genuinely global scope and the continuous documentation of non-anglophone music traditions.

#### 4.4 Structure of the genre-space

Figure 4 shows the genre-space map at 2024, with 229 styles placed along the interpretable axes described in Section 3.3 and sized by estimated catalogue volume. We stress that, for the reconstructed dataset shown here, these positions are an informed editorial placement rather than the output of co-occurrence MDS; the clustering described below is therefore a structured restatement of our prior knowledge of how these styles relate, made legible



**Figure 4:** The genre-space at 2024. Horizontal axis: acoustic/organic (left) to electronic/synthetic (right); vertical axis: percussive (bottom) to atmospheric (top). Positions are an editorial placement along these axes (Section 3.3); bubble size is proportional to estimated catalogue volume. Labels appear for styles above the 55th percentile of volume. Electronic styles (teal) sit at right, Hip-Hop (violet) at lower centre, roots and folk (amber, green) at left.

as a map, not an independent empirical finding. The same figure regenerated from a real Discogs dump (via the pipeline) would test whether co-tagging data reproduces this structure.

The Electronic styles occupy a broad region at the right of the map, reflecting both their large number and the well-documented practice of cross-tagging within electronic music communities (a release might be tagged both *Techno* and *Industrial Techno*). On this reading Electronic functions less as a single coherent style than as a *super-family* of closely related scenes.

Hip-Hop styles group at the lower centre, consistent with their shared rhythmic identity. Jazz and roots styles anchor the left, placed apart from recent styles in line with their emergence in a pre-digital era of more distinct genre boundaries. Whether real co-tagging

data would bear out this arrangement is exactly the question the production pipeline is designed to answer.

## 5. Discussion

### 5.1 The label-space and the audio-space can diverge

Our finding of sustained diversification in the genre label-space sits in apparent tension with the audio-homogenisation literature. Serrà et al. find that recordings have become less timbrally and harmonically diverse between 1955 and 2010 [8]; we find that the *named* genre space has become more diverse over the same period. How can both be true?

We propose that label-space diversity and audio-space diversity are largely independent quantities, for at least three reasons.

First, genre labels are *community assertions*, not measurements. When a community coins a new genre name, it is claiming a distinction that may rest on social, geographic, subcultural, or aesthetic dimensions that do not necessarily correspond to large differences in measurable audio features. A track can be classified as *Vaporwave* rather than *Synth-pop* on the basis of aesthetic ideology, production context, and community affiliation, even if the two styles are indistinguishable to a standard audio classifier.

Second, audio-based studies necessarily sample from the recorded signal. Production-level convergence – e.g., the spread of 808-based production across Trap, Hip-Hop, and even Pop – may reduce measured audio diversity within the mainstream, while genre labels proliferate in the underground and in specialist communities whose output is absent from chart-based samples.

Third, the two phenomena operate on different timescales. Audio convergence may be a medium-run trend driven by production tool adoption; label proliferation may be a long-run structural trend driven by distribution infrastructure and community formation. Both can be simultaneously true at the same point in time.

This reconciliation has an important empirical implication: a complete account of musical change requires both perspectives. Audio features measure what recordings *sound like*; genre labels measure what communities *think and say* about those sounds. Neither alone is sufficient.

### 5.2 Genre birth as an infrastructure effect

The correlation between style birth rates and changes in music industry infrastructure suggests that genre proliferation is not primarily a creative phenomenon but an *organizational* one. Genres need not just to be created but to be sustained: they require a community of practitioners, a distribution channel, a critical discourse, and a listening audience. These requirements set a minimum viable size for a named genre, and that minimum size is set by the available infrastructure.

When that threshold falls – as it does when independent labels, home recording, and then online platforms successively lower barriers to entry – the number of viable genre niches

increases. The pattern we observe is therefore consistent with the long-tail thesis applied to genre taxonomy rather than to sales distributions.

### 5.3 Limitations and future work

Three limitations warrant explicit acknowledgement beyond those noted in Section 2.

**Volume calibration.** Our volume curves are calibrated to match published aggregate statistics. They are not derived from raw release counts and should not be used for claims about the absolute volume of any style in any year. The directional findings – diversification, acceleration, family shift – are robust to reasonable variations in calibration.

**Birth year uncertainty.** Documented birth years for some styles are contested in the literature. We follow the most widely cited sources, but alternative chronologies would shift some bars in the demography figure without altering the aggregate birth-rate trajectory.

**Geographic scope.** The dataset privileges styles with documented Western distribution chains. A version calibrated to global music traditions would likely show even higher diversity growth, given the ongoing documentation of non-Western styles in the Discogs catalogue.

The most important extension is to run the full Discogs pipeline and replace the reconstructed volumes with empirical release counts. Secondary extensions include: integrating AcousticBrainz audio features [3] to test the label/audio divergence hypothesis directly; constructing a temporally-resolved version of the co-occurrence embedding to track structural change dynamically; and extending coverage to the MusicBrainz genre graph [7] to incorporate artist-level influence edges.

## 6. Conclusion

We have documented sustained, accelerating diversification of the genre label-space of recorded music from 1950 to 2024, using a dataset of 229 styles drawn from the Discogs taxonomy. Shannon diversity increased  $2.1\times$  over the window. The rate of new style emergence peaked across the 1980s and 1990s, in a pattern consistent with successive waves of infrastructure democratisation; the apparent decline thereafter is at least partly an artifact of right-censoring, as the most recent styles have not yet accumulated the documented history our birth-year criterion requires. The dominant family at the start of the window was Jazz · Blues · Soul; by 2024, Electronic has become the single largest family, accounting for 33% of releases.

These findings should not be read as a simple rebuttal of the audio-homogenisation literature. Genre labels and audio features measure different things, and both trends can coexist. What the findings do establish is that the cultural infrastructure of genre – the naming, categorisation, and community formation around styles of music – has expanded dramatically over the window we study. We measured no audio in this work, so we cannot test any causal link between sonic convergence and label proliferation; we offer only the hypothesis, for future work that joins label and audio data on the same releases,

that some genre naming may function as a way for communities to assert distinctiveness independently of sound. That hypothesis is beyond what the present data can support.

The interactive companion to this paper, available at <https://arjunkalbag.github.io/genre-space>, allows readers to explore the genre-space as it evolves year by year. All data and code are available at <https://github.com/arjunkalbag/genre-space> under an MIT licence.

## Acknowledgements

The Discogs community for two decades of editorial labour that makes large-scale genre research possible. Glenn McDonald for *Every Noise at Once*, the most perceptive map anyone has made of the genre-space. The authors of the foundational quantitative musicology papers cited throughout, whose frameworks this paper extends.

## Data availability

The genre chronology dataset, the full source code, and an interactive visualisation of the genre-space are available at <https://github.com/arjunkalbag/genre-space> under an MIT licence. The interactive visualisation can be explored directly at <https://arjunkalbag.github.io/genre-space>.

## References

- [1] Chris Anderson. The long tail: Why the future of business is selling less of more. *Wired Magazine*, 12(10), 2004.
- [2] Dmitry Bogdanov and Joan Serra. Quantifying music trends and facts using editorial metadata from the Discogs database. In *Proceedings of the 18th International Society for Music Information Retrieval Conference (ISMIR)*, pages 89–95, 2017.
- [3] Dmitry Bogdanov, Alastair Porter, Hendrik Schreiber, Julián Urbano, and Sergio Oramas. The AcousticBrainz genre dataset: Multi-Source, Multi-Level, Multi-Label, and Large-Scale. In *Proceedings of the 20th International Society for Music Information Retrieval Conference (ISMIR)*, pages 360–367, 2019.
- [4] R. Scott Hiller and Jason M. Walter. Music genre as a coordination device. In *Proceedings of the American Economic Association Annual Meeting*, 2018.
- [5] Myra Interiano, Kamyar Kazemi, Lijia Wang, Jieneng Yang, Zhaoxia Yu, and Srinivasan Bhaskara. Musical trends and predictability of success in contemporary songs in and out of the top charts. *Royal Society Open Science*, 5(5):171274, 2018. doi: 10.1098/rsos.171274.
- [6] Matthias Mauch, Robert M. MacCallum, Mark Levy, and Armand M. Leroi. The evolution of popular music: USA 1960–2010. *Royal Society Open Science*, 2(5):150081, 2015. doi: 10.1098/rsos.150081.

- [7] MetaBrainz Foundation. MusicBrainz database, 2024. URL <https://musicbrainz.org>. Core data released under CC0.
- [8] Joan Serrà, Álvaro Corral, Marián Boguñá, Martin Haro, and Josep Ll. Arcos. Measuring the evolution of contemporary western popular music. *Scientific Reports*, 2: 521, 2012. doi: 10.1038/srep00521.
- [9] Claude E. Shannon. A mathematical theory of communication. *Bell System Technical Journal*, 27(3):379–423, 1948. doi: 10.1002/j.1538-7305.1948.tb01338.x.