

Networked Music Cultures

Contemporary Approaches,
Emerging Issues

Edited by

Raphaël Nowak and
Andrew Whelan



Pop Music, Culture and Identity



Pop Music, Culture and Identity

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Pop music lasts. A form all too often assumed to be transient, commercial and mass-cultural has proved itself durable, tenacious and continually evolving. As such, it has become a crucial component in defining various forms of identity (individual and collective) as influenced by nation, class, gender and historical period. *Pop Music, Culture and Identity* investigates how this enhanced status shapes the iconography of celebrity, provides an ever-expanding archive for generational memory and accelerates the impact of new technologies on performing, packaging and global marketing. The series gives particular emphasis to interdisciplinary approaches that go beyond musicology and seeks to validate the informed testimony of the fan alongside academic methodologies.

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Raphaël Nowak • Andrew Whelan
Editors

Networked Music Cultures

Contemporary Approaches, Emerging Issues

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Pop Music, Culture and Identity

ISBN 978-1-137-58289-8

ISBN 978-1-137-58290-4 (eBook)

DOI 10.1057/978-1-137-58290-4

Library of Congress Control Number: 2016952438

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Printed on acid-free paper

This Palgrave Macmillan imprint is published by Springer Nature

The registered company is Macmillan Publishers Ltd.

The registered company address is: The Campus, 4 Crinan Street, London, N1 9XW, United Kingdom

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Editors' Introduction

Raphaël Nowak and Andrew Whelan

1.1 MUSIC AND DIGITAL TECHNOLOGIES

More or less explicitly, music and technologies are often thought of together, and rightly so. Without technologies, broadly understood (musical instrumentation, vocal techniques, modes for the transmission of replicable sequences and so on), there is no 'music' as customarily defined. As a contemporary popular cultural form, music is wholly technologically articulated and expressed, in terms of both consumption and production, and of course the technologies concerned are in turn social and cultural in their constitution, emergence and use.

This association between music and technology has received a particular inflection since the late 1990s, with the emergence of compressed digital music file formats, coupled with increasing Internet access and bandwidth. Napster seemed to redefine how listeners access and interact with (and through) music content. The following years were, in hindsight, defined in the 'advanced' economies by the development of a particular social drama: an opposition between the technological and legal enforcement

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of a production and distribution model on the one hand, and increasingly criminalised alternative distribution modes on the other (see, for example, Dennis 2009; Vaidhyathan 2004). In the same period of time during which this techno-legal dynamic unfolded (and during which preferred legal distribution and monetisation strategies were also developed), digital technologies have, for many music cultures, become increasingly prominent: in terms of how music is produced (and to some extent thereby how it sounds), how it circulates, and how people access music, engage with it and ‘socialise’ (through) it.

Journalistic accounts of the association between music and digital technology have tended to emphasise the apparently radical changes it entails (see, for example, Witt 2015). This emphasis is a characteristic feature of popular discussion regarding music and digital technology, and has been for some time (Guzman and Jones 2014). Somehow, even after 20 years, music in digital formats remains a new ‘problem’. The most novel manifestation of digital music technologies—mass illegal downloading—is thus seen as the cause of all troubles. For instance, Andrew Edwards writes that the music industry ‘has been destroyed by digital technologies that have made music virtual, untethered to a physical unit, and very easily appropriated’ (2015, p. 9). Occasionally such stories are presented as augurs for other industries—higher education, for instance—which must adapt or face obsolescence. In the new world of plenty, traditional gatekeepers are in danger of extinction.

Such narratives are ‘default’, often appearing as if they were by rote, and although they are sometimes presented as definitive, they generally gloss the complexities around how digital formats develop, come to be adopted, and adjust to dynamic cultural landscapes. In particular, these narratives have tended to neglect variations across the socio-economic, cultural and geographical contexts within which digital music technologies have become ‘naturalised’, in the same way that they often depict technologies as somehow fully formed and determined prior to their circulation across these contexts. Digital music technologies are far from being globally homogeneous. They do not penetrate all territories at the same speed. Different people, who have different interests, literacies, priorities and modes of engagement, use them differently. They are diffused across contexts where other longstanding technologies may be culturally durable, specified for highly particular uses, and not assimilable to the logic of the digital ‘upgrade’.

Discourses on the digital tend therefore continually to sever everyday digital music from its historical antecedents, although the constitutive relationships between music, format and transmission are long, complex and instructive (see, for example, Berland 1990; Carlsson 2008; Denning 2015; Durant 1990; Ernst 2016; Kromhout 2011; Lysloff and Gay 2003; Manuel 1993; Osborne 2012; Papenburg and Schulze 2016; Rogers 2013; Shelemay 1991; Théberge 2004; Sinnreich 2010; Sterne 2012). Accounting for changes concurrent with the inception of digital music technologies involves investigating processes that unfold over time. The temptation to generalise 'universal' dynamics of technological diffusion or uptake can be mitigated in part by attending to the detail of fragmentary and unresolved processes, that are often contradictory in their specifics. The motif of digital technologies that only now penetrate some 'new' and remote territories or cultural contexts is a prime example of such generalisation, a motif that confirms romantic notions of 'authentic' cultures, awaiting the miracle of modern technologies of inscription and fideli-ous capture.

There is therefore a dichotomy, between what are perceived as (claims to definitive) *discourses* attempting to capture changes induced by digital technologies, and *narratives* that unfold within, and with respect to, diverse contexts, where such narratives accrete to provide granular perspectives on the processes and dynamics whereby music technologies come to be consequentially embedded within particular contexts. To assemble such partial narratives, and showcase how they are illuminated by a diversity of contemporary research approaches, is the objective of this book.

Music is not a disembodied or autonomous social force. It is always enacted and encompassed within technological processes, which are in turn constituted, contested, appropriated and imposed under and in relation to specific social, political and economic conditions. As indicated by the essays contained herein, these processes can (and should) be approached and understood in multiple ways. They are processes, paradoxically, which seem both intense and slow moving, affecting different places, modalities and practices with varying intensities and rhythms. Attempts to explain digital music in everyday contexts under a singular research paradigm are invariably presented with the unenviable task of accounting for all the peculiarities arising from the immediate social and cultural context. Overarching narratives of the digital must remain permeable and inclusive, to incorporate the specificities of the conditions in which the digital

partakes. The technological and its social uses and implications continuously unfold within specific contexts and historical junctures.

1.2 NETWORKED MUSIC CULTURES

Technologies are themselves social in that they make manifest preferred uses and intended values on the part of manufacturers, which may or may not receive the preferred or anticipated uptake. Technology is a porous formation, with fuzzy border zones shared with normalised and potential communities of use, regulatory regimes, antecedent technologies, the corporate and workplace cultures in which they are seeded and developed, emerging and established infrastructures, industrial, economic and design contexts and so on. The various digital configurations all have their own characteristics and affordances, and are variously ‘open’ or ‘black-boxed’.

Furthermore, individuals and communities act variously on these technologies and their affordances, use them, embrace or abandon them, subject them to unexpected uses and pressures, and integrate them within their particular everyday contexts (see Nowak 2014). Routinised or embedded technologies can have uses and implications that are multiple, where some may contradict each other (for instance, infringing online downloading simultaneous with legal streaming services). Many inquiries have, for example, found that users who download the most music are also those who buy more compact discs (see Bahanovic and Collopy 2009, 2013). We stress therefore that the association between music and technologies is dynamic, because it is articulated across particular contexts in open-ended circuits of use, alongside pre-established technologies and practices, where processes and outcomes are often unpredictable and unanticipated. In the same way that contingent technological lock-ins come retrospectively to seem such inevitable and normal features of everyday life (the internal combustion engine, the QWERTY keyboard), so multiple possible future trajectories for the music–technology inter-articulation are plotted on the basis of partially known features of the present media ecology, by a range of actors who do not necessarily share compatible interests. While totalising accounts are therefore unsatisfactory, repeated but distinct empirical ‘takes’ can permit nuanced understandings of how this association unfolds, and demonstrate how it can be investigated and described.

As noted elsewhere (Nowak and Whelan 2014), the 15 years that separated the advent of the first notorious peer-to-peer network, Napster, from our exploration of the consequences of digital technologies for music gave

rise to a range of analyses calling into question the assumptions hedged around discussions of the role of digital technologies in relation to music. In 2005, for example, David Beer described the 'competing utopian and dystopian rhetorical formulations' commonly aired when music as a networked cultural form is discussed. Certainly, the complex and multifaceted nature of digital music requires greater nuance than the tropes of revolutionary (or apocalyptic) change afford. To us, this implies that the everyday association of digital technologies and music must be read critically against multiple sites, scales and disciplinary matrices: technologically, aesthetically, socially, legally, historically and so on.

We present this collection of essays under the title *Networked Music Cultures* because we intend to highlight two important features of the digital for music in mundane social worlds: it creates connections, networks and links between individuals, structured soundscapes, protocols and processes; and it is interwoven with and embedded within cultural contexts and routine practices.

Just as networked music cultures are heterogeneous and dynamic, so the range of approaches making up the contemporary research field shares these features. Specific analytical frameworks, research projects and disciplinary orientations highlight different aspects of the fragmentary logics and dynamics around music in digital formats. There is not a 'correct' or 'conclusive' interpretive scheme for contemporary digital music, but understanding the wealth and diversity of approaches and their constitutive relations to the phenomena they uncover can foster a stronger appreciation of what is at stake in how networked music cultures are conceptualised.

1.3 OUTLINE OF THE BOOK

Networked Music Cultures comprises a collection of essays, which cover a broad range of manifestations of digital music technologies within contexts where their presence has come to be felt. We expect these contributions to highlight novel ways to think about digital music technologies, and particularly about their increasing reach and variegated impacts. Our aim in compiling these contributions is to counteract definitive and resolute discourses on networked music cultures by placing social, cultural and economic processes at the core of the development of the digital. Taken together and read individually, the contributions to this volume demonstrate the diversity and vitality of research in this area on three counts.

Firstly, in terms of their areas of investigation, they indicate the depth and range of forms and scales by which everyday digital music is known and investigated. These include listening rituals and habits, intellectual property policy statements and instruments, the extensive implications of streaming audio, consumption practices set by corporate monopolies, nostalgic affects and the aesthetics of absence and virtuality, 'active' audiences and participatory culture, the constitution of the musical 'object', cultures of sharing, longstanding compositional practices and genres in legal grey areas, innovation in revenue-generation strategies, the remediation of prior formats, the audience as big data, intersections with and disruptions of established industry practices, discourses of economic justice and so on.

Secondly, in methodological, theoretical and analytical terms they showcase the spectrum of different approaches to researching the topic of digital music in everyday contexts. This is particularly evident when chapters are juxtaposed. They explore issues related to the technological and the digital from different disciplinary perspectives (including sociology, cultural theory, media and communications, anthropology, industry analysis and popular music theory), across different national and cultural contexts (including Ireland, Finland, Norway, Australia, Cuba, Japan and Mexico) and with a broad range of methodological tools (semi-structured interviews, personal diaries, textual analyses, quantitative data analyses, policy evaluation and so on).

Thirdly, the contributions in the book show how analyses, ideas and conclusions on networked music cultures are embedded within the (research field and disciplinary) contexts of their emergence. In that regard, our contributors provide accounts that not only extend knowledge of various aspects of digital music and networked music cultures, they also update this very body of knowledge.

The chapters can, of course, be read in any order. There are commonalities across them, such that some are 'closer' or 'further away' to others in terms of geographical, national or cultural context, relative scale or foregrounding of significant 'players' (the listener, local music industry personnel, the interface, multinational media corporations, fan communities, the superstar musician and so on), explicit attention to continuities, absences and returns of prior formats, theoretical and empirical approaches and in various other ways. The chapters are intentionally sequenced, however, in such a way that they build successive and contrastive impressions of the focus at hand, showing how the implications of networked music

cultures can be understood quite differently depending on where and how one looks. The book features 13 chapters, which are ordered as follows.

In Chap. 2, Tom Astley investigates practices of music file sharing in Cuba. In a country currently undergoing transformations in its relationship to dominant economic interests, Internet access remains scarce and many forms of music retrieval are impracticable. Swapping files through USB sticks, Cubans engage in politically transgressive activities through the social circulation of media, redistributing extra-national musical forms alongside local music. In so doing, they engage in longstanding cultural and social practices of co-constructing and sharing narratives regarding the contexts of origin for the musics they exchange, such that the networks of music exchange are also modes of solidarity and collective cultural memory.

Following this, Robert Prey explores the 'datafication' of listening in Chap. 3. Looking particularly at the examples of Spotify and Pandora, he describes how algorithms identify musical elements and group them together, in order to provide better recommendations to listeners. Prey highlights some of the disconcerting consequences that follow from the data analytics that streaming services conduct on listener behaviour, particularly where this data is aligned with other kinds of information about service users.

In Chap. 4, Matthew David provides an overview of the increasing availability of (free) music content to listeners. He argues that the history of recorded music is characterised by a reduction in music scarcity. Drawing particularly on the history of digital technologies, David shows that streaming services follow the same model of distribution as peer-to-peer networks, highlighting the paradoxical effects of streaming for musicians. Moreover, he stresses the argument that income previously allocated to music purchases can now be diverted to attendance at live shows.

Noriko Manabe then explores issues and trends in music consumption in Japan in Chap. 5. In a country where radio served distinctive social purposes, the use of playback devices like the Sony Walkman has long been prominent (in the context, for example, of the Japanese public transport commute). Manabe explains the reasons behind Japan's cultural divergences when it comes to the continuing importance of the compact disc (CD), and the slow penetration of technologies like iTunes, and more recently, streaming services. Manabe demonstrates how a range of features, including historical specificities regarding formats, cultures of immersive social listening, and perhaps especially industry reluctance to surrender

control of the contemporary catalogue, converge to impede the uptake of streaming services.

In Chap. 6, Víctor Ávila-Torres explores practices of CD burning and pirating in Mexico City. These ways of accessing music remain essential in the distribution, dissemination and consumption of various forms of content, including some that is shared without any contextualising information (in terms of authors, singers, album or track names). Developing a theoretically nuanced account grounded in actor-network theory, Ávila-Torres explores the subtleties of listeners' discursive strategies and decision-making processes with respect to music acquisition.

Antoni Roig and Gemma San Cornelio investigate Beck Hansen's sheet music project, *Song Reader*, in Chap. 7. Developing a cultural analysis of the various events, performances, cross-promotions and online texts that arose from *Song Reader*, the authors argue that this album project represents a 'co-creative experiment'. As the argument demonstrates, Beck's innovative approach, which aimed to include his fans in the creative process, is nonetheless embedded within notions of romanticism, canonicity, authorship and nostalgia.

In Chap. 8, Raphaël Nowak and Andrew Whelan investigate the notion of digital music as a 'boundary object', and argue that discursive iterations of digital music emerge from and exhibit particular interests. Discourses about what digital music is and supposedly represents are argued to be emergent and specific to particular social worlds. Nonetheless, as evinced in popular discourse, consistent preoccupations with the ethics and economics of networked music show that it is a key vehicle for foregrounding music as a means of instantiating political arguments about artistic expression, economic justice and community.

Discussions on a longstanding Finnish Facebook group frequented by music industry and independent professionals are Juho Kaitajärvi-Tiekso's focus in Chap. 9. The discussions highlight insider appraisals, positive and negative, of royalties, the model of the 'long tail', and who the 'winners' and 'losers' are with respect to the streaming service Spotify. His account provides a clear insight into how global debates about music distribution and artists' remuneration occur within a national context. There is no consensus regarding the rationale behind decisions taken in the music industry and the directions that should be taken. For the parties to this dialogue, the sustainability of recorded music is at stake within these debates.

In Chap. 10, Steve Collins and Pat O'Grady investigate how streaming data can be organised into charts, and discuss how doing so would turn traditional methods of charting music into crude and obsolete tools. They argue that in the digital age of music technologies, different media, objects and activities must be incorporated into how we look at the popularity of music. Streaming services offer the opportunity to measure a new variable, listeners' engagement with music, effectively reconstituting what it means to say that a song is 'popular'.

Kieran Fenby-Hulse addresses the concept of the mixtape in Chap. 11. He explores the parallel between digital playlists and cassette mixtapes, showing how the latter were much more thoroughly embedded within particular material and sociable practices around music. For Fenby-Hulse, the mixtape is in a sense a romantic object, for which there is not yet any digital parallel, considering especially that streaming services such as Spotify lack, by design, open-ended features providing users with the capacity to personalise or engage socially with each other's music of preference.

In Chap. 12, Jim Rogers and Anthony Cawley critically review the 'crisis' of the music industry, specifically in the austerity context of Ireland after the global financial crisis. Rogers and Cawley show exactly how and why the development and application of policies aimed at consolidating and enforcing intellectual property rights has not in any straightforward sense accomplished the ostensible goal of boosting the revenue of the local 'creative industries'.

The mashup is Anthony Cushing's focus in Chap. 13. Looking at mashups as a stylistic expression that has an extensive (and pre-digital) history, he questions whether mashup culture can intelligibly correspond to the conventions of canon formation. While the prevalence of practices like creating mashups has increased with the availability of music in digital format (Danger Mouse's *Grey Album* representing the most iconic example), Cushing interrogates whether notions of authorship and the tenacity of metrics as evidenced by charts can be overcome to turn mashup into an established musical genre or category *per se*.

Finally, in Chap. 14, Anja Nylund Hagen advances a phenomenology of listening practices through streaming services. She looks at how uses of streaming services are anchored within mundane contexts by drawing on sophisticated multimodal qualitative research conducted with listeners, showing how listeners engage with music and the important roles that it plays in modulating the rhythms of everyday life.

BIBLIOGRAPHY

- Bahanovic, D., & Collopy, D. (2009, Summer). Music experience and behaviour in young people, *UK Music*.
- Bahanovic, D., & Collopy, D. (2013, Winter 2012–2013). Music experience and behaviour in young people, *UK Music*.
- Beer, D. (2005). Introduction: Collecting the fragments of transformation. *First Monday*, Special edition 'Music and the Internet', 10(7). Retrieved May 22, 2016, from <http://firstmonday.org/ojs/index.php/fm/article/view/1451>
- Berland, J. (1990). Radio space and industrial time: The case of music formats. *Popular Music*, 9(2), 179–192.
- Carlsson, A. (2008). Chip music: Low-tech data music sharing. In K. Collins (Ed.), *From Pac-Man to Pop Music: Interactive audio in games and new media* (pp. 153–162). Aldershot: Ashgate.
- Denning, M. (2015). *Noise uprising: The audiopolitics of a world musical revolution*. London: Verso Books.
- Dennis, D. (2009). Domestic wars Redux: Obama, digital prohibition and the new 'Reefer Madness', *CTheory* rt003. Retrieved May 18, 2016, from <http://www.ctheory.net/articles.aspx?id=607>
- Durant, A. (1990). A new day for music? Digital technology in contemporary music-making. In P. Hayward (Ed.), *Culture, technology and creativity in the late twentieth century* (pp. 175–196). London: Arts Council and Libbey Press.
- Edwards, A. V. (2015). *Digital is destroying everything*. London: Rowman and Littlefield.
- Ernst, W. (2016). *Sonic time machines: Explicit sound, sirenic voices, and implicit sonicity*. Amsterdam: Amsterdam University Press.
- Guzman, A., & Jones, S. (2014). Napster and the press: Framing music technology. *First Monday*. Retrieved May 17, 2016, from <http://firstmonday.org/ojs/index.php/fm/article/view/5545/4124>
- Kromhout, M. J. (2011). 'Over the ruined factory there's a funny noise': Throbbing gristle and the mediatized roots of noise in/as music. *Popular Music and Society*, 34(1), 23–34.
- Lysloff, R. T., & Gay, L. C. (Eds.) (2003). *Music and technoculture*. Middeltown: Wesleyan University Press.
- Manuel, P. (1993). *Cassette culture: Popular music and technology in North India*. London: University of Chicago Press.
- Nowak, R. (2014). Investigating the interactions between individuals and music technologies within contemporary modes of music consumption. *First Monday*. Retrieved May 21, 2016, from <http://firstmonday.org/ojs/index.php/fm/article/view/5550/4129>
- Nowak, R., & Whelan, A. (2014). The 15-year anniversary of Napster: Digital music as boundary object. *First Monday*, Special edition 'Napster, 15 years on:

- Rethinking digital music distribution', 19, 10. Retrieved May 22, 2016, from <http://firstmonday.org/ojs/index.php/fm/article/view/5542/4121>
- Osborne, R. (2012). *Vinyl: A history of the analogue record*. Farnham, UK: Ashgate Popular and Folk Music Series.
- Papenburg, J. G., & Schulze, H. (Eds.) (2016). *Sound as popular culture: A research companion*. Cambridge: The MIT Press.
- Rogers, J. (2013). *The death and life of music in the digital age*. New York: Bloomsbury.
- Shelemay, K. K. (1991). Recording technology, the record industry, and ethnomusicological scholarship. In B. Nettl & P. Bohlman (Eds.), *Comparative musicology and anthropology of music: Essays on the history of ethnomusicology* (pp. 277–292). London: University of Chicago Press.
- Sinnreich, A. (2010). *Mashed up: Music, technology, and the rise of configurable culture*. Amherst: University of Massachusetts Press.
- Sterne, J. (2012). *MP3: The meaning of a format*. Durham: Duke University Press.
- Théberge, P. (2004). The network studio: Historical and technological paths to a new ideal in music making. *Social Studies of Science*, 34(5), 759–781.
- Vaidhyanathan, S. (2004). *The Anarchist in the Library: How the clash between freedom and control is hacking the real world and crashing the system*. New York: Basic Books.
- Witt, S. (2015). *How music got free: The end of an industry, the turn of the century, and the patient zero of piracy*. New York: Viking.

The People's Mixtape: Peer-to-Peer File Sharing without the Internet in Contemporary Cuba

Tom Astley

2.1 PROLOGUE

In early 2013, my wife and I were invited to a friend's house party in the Nuevo Vedado neighbourhood of Havana. The exterior of the modest apartment block was unassuming, indicative of much of the capital's fading suburban glamour: a structure of slowly, imperceptibly disintegrating concrete and steel bars, the hauntological clean lines of an Art Deco façade broken here and there by a gouged-out chunk in the stucco. Climbing the internal stairwell, cool and dark despite the lingering heat of the evening, we walked on wide white marble steps, made slippery by the polishing of thousands of feet, to the thin metal gates over white doors; a barrier between the public space and private home that many writers have noted is a continued feature

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of social life in socialist Cuba. We reached past this gate and knocked on the door.

The inside of this apartment stood in stark contrast to its shell. The shared structuring of the Cuban homespace—made all the more a cliché by its abundance—was almost entirely absent here. No heavy wood rocking chairs, but a sleek, long, white sofa. No mottled walls, but cool, deliberate cream, running throughout the apartment. No calcified pressure cookers, but a brushed-steel wine rack, and a plasma-screen television glinting in the corner. And an Apple iMac providing an eclectic mix of music.

Though these furnishings might stand out from the majority of Cuban homes, they are not a negation, but rather an expansion—and it has to be said an increasingly familiar one—of this shared private aesthetic, another aesthetic definition of Cubanness. And in particular, the presence of technological devices—computers especially—is beginning to find a foothold in the Cuban cultural sensibility, as are their increasingly significant appendages and their cultural usage.

As the party progressed, talk turned to music and films. And as always, Cubans of the post-Special Period era express a very au courant knowledge of, and access to, foreign popular cultures. This extends past (though not without including a copious amount of) Anglo-American ‘mainstream’ cultural products, and into a great wealth of Latin American and European cinema and music. ‘Have you seen ...’ was met with ‘have you heard ...’. ‘Do you know ...’ was met, most often, with ‘claro’ (‘of course’). This vocal exchange was quickly accompanied by a digital one. Swapping files—music, films, television shows, PDFs, books, art, photographs—has become not only a pragmatic way to circumvent the limited (and limiting) access to the Internet within Cuba, but also a significant function of social interaction in itself, a means of constructing microsocial peer-to-peer file-sharing networks, and a space in which sense is made of those texts. As a Cuban friend had told me on another occasion, bringing a USB stick to any social function was expected—a reciprocal gift—a kind of alternative identity card, a passport to socio-cultural interaction, a gateway to finding and disseminating cultural content, a way of mediating, contextualising and making sense of that same content.

I had brought my small but capacious external hard drive with me—to fill up rather than to pour out, hoping to expand my collection of Cuban music. It was embarrassingly underused, culturally as well as digitally empty. I connected it to the iMac and we dragged and dropped files for a while, snippets of conversation, little definitions and descriptions of the files filling the time it took to copy them across, building a little cultural network—a ribbon of

connected dots; 'if you like that, then you might like this'—a constellation of collected and collated files. And what made this moment a jumping-off point for this chapter—and this line of cultural enquiry—was how accepted, how everyday and how Cuban this process has become.

2.2 'THE PEOPLE'S INTERNET': FOREIGN TEXTS IN CUBA

Despite the persistent and consistent presence of 'foreign' musics, films, literature and other cultural texts within the post-revolutionary Cuban soundscape, access to, and information about, such texts is often hard to come by within the island. As Deborah Pacini Hernandez and Reebee Garofalo suggest, information has often come as 'fragmentary, intermittent, and highly decontextualised' shards (1999, p. 19), akin to 'smoke seeping under a closed door' (Pacini Hernandez and Garofalo 2004, p. 44), still officially prohibited and clandestinely consumed. And yet, this fragmentation of cultural flow and dissemination has scarcely stopped the desire for, knowledge and appropriation of, or the ascription of particularly Cuban meaning to, these foreign cultural texts. That these successive waves of information have continued to lap at the shores of the island, past external blockade and internal censorship, does not necessarily give evidence of longstanding internal cultural dissidence, nor of encroaching 'Americanisation'. Rather, they have been utilised by progressive generations of Cubans to better define, construct and reflect their sense of individual and collective identities, giving voice to John Shepherd's assertion that music 'does not "carry" its meaning and "give it" to participants and listeners. Affect and meaning have to be created anew in the specific social and historical circumstances of music's creation and use' (1993, p. 138).

This research focuses particularly on the use of USB devices in contemporary Cuba, giving an account of the uses and meanings behind this latest in a long continuum of modes of foreign music dissemination. Information downloaded from an Internet source (not readily available to most Cubans), or else brought into the country by foreign visitors or returning Cubans, is regularly swapped through meetings in private spaces such as the one already described, where a more individualised Cuban identity can be safely discussed and constructed (see Aguirre 1984; Kapcia 2005; Moses 2000; Sánchez 2010). Not only does this chapter attempt to connect this latest practice of non-official modes of information dissemi-

nation into a longer tradition and history of such practices within Cuba, it also seeks to illuminate the ways in which the *means of dissemination* themselves help construct the meaning of the texts in a recontextualised cultural setting.

In Cuba, the Internet is far from a ubiquitous cultural source, and so conceptions of social networks and immediate access to cultural texts that make sense of online file sharing are not applicable in quite the same way. Issues of copyright infringement, of ‘killing the film/music industry’, do not make sense in a country where the actual products—either in physical format or through legal download—are near-impossible to procure. Indeed, such conceptions are seldom held by Cuban musicians themselves. As Geoff Baker notes, particularly of the underground music scene, ‘the memory stick trumps the radio’ in terms of communication and cultural prestige (2011, p. 6). Not only have these non-official routes of dissemination acted as perfunctory means to share cultural texts, they have offered a significant route for marginalised Cuban musics and musicians to influence the overall soundscape of the island.

However, although Cuba has a lack in regard to Internet access, technologically speaking there have been some interesting and significant advances. Along with the often proscribed foreign musics that have seeped into Cuba, so too have technological devices carrying that music. As Gámez Torres writes, there exists ‘a booming black market where ... the computer savvy [can] construct their own cheaper systems by assembling different components’ (2013, p. 353). This black market bricolage locates this technological-cultural practice within myriad other aspects of the Cuban everyday, from fixing cars to grocery shopping. Yet it has also shaped the ways in which Cuban music (and other cultural texts) is made by its creators and made sense of by its audiences. As such, a complex skein (albeit more geographically cemented) of peer-to-peer networks now exists as a central aspect of the cultural landscape. These large(r)-capacity devices are obtainable and observable within smaller towns and even rural settings now, perhaps even to the extent that they rival radio and television in their ubiquity.

Vincente Morín Aguado interestingly refers not only to the social importance and cultural work of USB drives in Cuba, but also to their apparent ubiquity, when defining them as ‘the people’s Internet’ (2015). Aguado’s use of collectivist language adds a kind of social nuance to the prevailing notion of the ‘Personal Portable Library’ that Henry Warwick discusses (2014, p. 8). Where these personal portable libraries are often

individually constructed and collated from a (seemingly) limitless pool of possible information, the very 'strangled and tangled' routes of cultural flow into and around Cuba (Astley 2014, p. 469)—the persistent blockage/embargo/governmental censorship, the physical lack and political curtailments on Internet access—make these libraries much more collective, and much more useful in defining and reflecting collective identities. These are more social portable libraries, and their librarians are the latticework of social networks of friends and trusted colleagues. The act of collating and collecting texts for these social libraries—this 'people's Internet'—is a somewhat overlooked mundanity for Cubans, an act of the everyday. And yet, simultaneously (and paradoxically, as is the case with so many of the pragmatic transgressions of the revolutionary rules that constitute the everyday within Cuba), it is still an act, potentially, of political and cultural dissidence. It is a line that many Cubans walk as a matter of course.

Where this 'people's Internet' may differ from its online contemporaries is that the non-formality of the copying and dissemination, the precise *imprecision* of the copying, leads often to a lack of contextualising information—a loss of (extra-textual) data that situates and makes sense of cultural texts (often tacitly) in online domains. As I have noted elsewhere (Astley 2015), however, this lack of contextualisation is actually often crucial in making sense of these texts within a specifically Cuban context. A process of 'translation' is frequently undertaken, where texts are made sense of within their new environment, the gaps of contextualising knowledge are 'filled in' with a Cuban reading, and the texts are placed within a Cuban cultural framework, made sense of outside their existing cultural narratives and historiographies. As such, one might more usefully draw parallels with, and situate USB file sharing within, a technological lineage that includes illegal satellite television transmissions, burned CDs, mixtapes, samizdat records and foreign radio stations, all of which have been integral in successive generations of young Cubans' understanding of, and engagement with, 'foreign' musics after the Revolution.

2.3 STATIC AND HISS: CONTEXTUALISING USB USE IN CUBA

Because of the economic and political circumstances, commercial forms of musical dissemination have traditionally been of little significance in post-revolutionary Cuba. Foreign cultural products are still officially

unavailable to buy in Cuba, with both the Revolution's censure and the US trade embargo holding a kind of mutual distancing. Equally, musical texts produced on the island by the state record labels tend to be marketed and sold (officially) predominantly to a tourist market. As such, there has never really been a vibrant legal market, after the Revolution, for these illegal methods of musical dissemination to oppose. Thus, Cuba sits in a somewhat unique (not to mention paradoxical) cultural space, wherein these non-official means of dissemination are seen as a matter of course, but the actual texts disseminated are prohibited.

File sharing in Cuba operates with much less of the anonymity of online 'peer-to-peer' networks. Cubans share texts literally with their peers—school friends, work colleagues, friends and family members—keeping to quite tight social networks. These Cuban networks mirror the kinds that blogger Yoani Sánchez observes in the sometimes doleful, sometimes acerbic, jokes about the state, the Revolution and its heroes that proliferate around Cuba, writing that 'we ... make those who govern us the butts of our jokes, though generally in the privacy of the family or with a close circle of friends' (Sánchez 2010). Benigno Aguirre similarly writes:

Humor is a genre for the anonymous expression of political dissent ... as a cultural object, the *chiste* [joke] has an anonymous origin ... It can be enacted in ephemeral, short-lived small-group interaction involving a narrator and an audience. The narrator initiates a *chiste* and decides who to share it with. (2002, p. 71)

In Aguirre's account, though the author of the joke itself is anonymous, it is important that the narrator shares it within these 'known' social networks and occasions, in small groups and with sympathetic audiences. This is again a mirror of this kind of USB dissemination, where the origins of the content might be anonymous (or anonymised), but the content itself still needs to be shared among familiar social groups. In this sense, the *social* aspects of USB file-sharing social networks need to be emphasised. Where the content itself carries the spectre of being potentially 'counter-revolutionary', a level of care is taken over where, when and with whom content is shared.

It might seem odd to link the concept of personal portable libraries with a medium like radio. Indeed, as Peter Manuel notes in *Cassette Culture*, cassettes and other audience-driven media in many ways stood as a 'challenge to the one-way, monopolistic, homogenising tendencies of the "old"

media' such as radio (1993, p. 2). However, it is worth contextualising the meanings and uses of radio as they manifested immediately following the Revolution. The logistical difficulty of blocking its signal left foreign radio in a strangely liminal space outside, and yet still within, the Revolution. Radio, in this context, became a predominantly social tool. Though the content of these stations might have been predetermined, it was far from 'monopolistic' and 'homogeneous'. Indeed, this semi-clandestine use of radio—its very social mediation—made it not only a profoundly important source of foreign musical information, but also a key step in the collation of such libraries of foreign music. As I have written elsewhere:

I spoke to a radio DJ who remembered congregating in the park with friends in the 1970s to tune in to Latin American radio stations that played '*música inglesa*'... This DJ referred to these late-night musical gatherings as a '*rico*¹ fantasy'; a fantasy in which cultural material was ascribed a Cuban significance. (Astley 2013)

The 'fantasy' here comes from the social mediation of these musical texts emanating from the radio. Often lacking in cultural contextualisation, this DJ emphasised the importance of arguing over the meanings of lyrics, their singers and their origins.² The '*rico*' aspect was that the same dearth of information (or more properly, the lack of control over the source of the information) that made such speculation necessary meant that 'proving' one suggested meaning to be correct over another was difficult, therefore speculation could extend long into the small hours in parks and bedrooms throughout the island. It is from this point, at the beginnings of the continuing revolutionary project, that a lineage of such social speculation and curation of foreign texts began—if not unhindered by censorship, prohibition and embargo, then certainly not stopped by it.

As the Iron Curtain was pulled down across Europe at the end of the 1980s, Cuba suffered a socially, culturally, economically and politically traumatic epoch of near-famine, dearth of all consumer goods and political uncertainty that became known as the *período especial en tiempos de paz*—the 'Special Period'. Another mass wave of migration on precarious (and literally) home-made rafts (many of which were made from materials torn from houses) came to leave an indelible mark on the collective consciousness of Cuba, parsed between two close-but-divided geographical spaces, and is still one of the most vivid images of the period. However, Silvia Pedraza-Bailey observed that the 1980s 'vintages' of Cuban migrants, in

contrast to earlier migrant groups, tended to maintain closer communications with friends and family remaining on the island (1985, p. 9), a phenomenon that has only increased since the Special Period. This communication has often included sending music, which has become a significant rivulet of cultural information to the island.

Accompanying this traumatic exodus, and in part as an appeasement to the economic crises that had hit Cuba, a renewed influx of tourism—particularly ‘cultural tourism’—began to encroach on the island’s cultural sensibility, proving, in many ways, to be equally unsettling. Tourist numbers increased exponentially as a pragmatic and deliberate policy of the Cuban government to stabilise and reinvent the Cuban economy, which had been so dependent on Soviet trade (see Gott 2004, p. 287; Perez 2006, p. 292). Although the Cuban government attempted to maintain an ‘enclave mode, keeping the tourist sector separate from the rest of the economy’ (Dolores Espina 1991, p. 1), this economic policy spilled over into social policy, deliberately trying to keep tourists and Cubans apart. Nevertheless, the cultural curiosity of many tourists, and the reciprocal interest among many Cubans, led to unavoidable cultural communication. Cubans working in the tourism trade—as translators, tour guides, hotel staff, cultural staff, musicians and dancers in tourist-centric performances, even *jineteros/as*³—came into contact with tourists, many of whom made return journeys to the island, creating longlasting friendships and acquaintances. And so, though many tourists ‘took away’ Cuban culture, they also, encouraged by the Cubans they met, increasingly brought cultural texts with them, such as mixtapes and magazines, which were shared with social groups, pored over and made sense of.

Again, as with the ‘*rico* fantasy’ of the previous generation’s radio, many of these texts—literally ‘mixed’ on cassettes—came without lyrics, pictures of the band, album names, even track names, certainly without biographical information about the musicians and their place within the canon of their respective genres. Shorn of this paramusical contextual information, the musical texts were filed in the personal/collective libraries in much the same way—with a significant amount of cultural translation and addition. Yet despite the information loss in the process of copying and sharing this music, these mixtapes represented perhaps more permanence and personalisability. They were more readily able to be disseminated and copied, and gave more agency to the listeners in selecting and remixing. In this regard, they represent perhaps the most readily comparable progenitor to the contemporary USB culture, which serves, in many ways, to produce

a litany of augmented (in fidelity, sheer space and types of content) and always-amendable mixtapes.

Today, as in many countries, burned CDs and DVDs proliferate on the streets of Cuba. Behind the chipped paint of colonial columns on pot-holed residential pavements sit arrays of CD racks, their vendors selling everything from Mariachi bands to Hollywood blockbusters, from the latest reggaetón to nursery rhymes. All of this locates Cuba within a familiar global marketplace context. These kinds of non-official marketplaces have offered an affordable alternative to official hard-copy texts. The fact that these original foreign texts are 'not only rare in Cuba, but they are suspect and can be considered enemy propaganda' (Moses 2000, p. 14) acts as something of a deterrent, perhaps. However, even if these texts were available legally, they would be, as Stephen Foehr points out, 'prohibitively expensive' to all but a handful of Cubans (2001, p. 26). So they operate within, and as part of, that quasi-acceptable 'black market'.

CD burning also became an important mode of sharing cultural information for both Cuban musicians and their audiences. The wonderfully parodic 'Black Metal' by punk band Porno Para Ricardo (see Astley 2014, p. 463), alongside its critique of 'underground' rock subcultures within Havana, also introduces the listener to a cultural gatekeeper—Toni, a *quemador* (a 'burner')—who is able to burn CDs for the *frikis*.⁴ These *quemadores* became key players in the 'boom of underground music in the 2000s' (Baker 2011, p. 22), providing an important outlet for musicians:

Since there is virtually no market for original CDs in Cuba, even the most successful artists often bypass the formal song or record release altogether and deal directly with ... *quemadores* who create compilations and sell them on the streets. (Baker 2011, p. 22)

This system of distribution again gives a precedent to the USB culture. Importantly, it demonstrates that many Cuban musicians, filmmakers and writers are willing to disseminate their music via these non-official means as a way to stoke interest and establish an audience. And it offers an insight into the collation of these personal/collective libraries that meld and mediate Cuban and foreign musics in much the same ways, and with much the same cultural meaning. The songs on these burned CDs are literally disseminated through the streets, as Nora Gámez Torres notes, 'through an informal music economy network' that includes '*bicitaxistas* [bicycle-taxi drivers, usually migrant workers from the eastern provinces]'

(2012, p. 229, parentheses original). Again, these routes of non-official dissemination are not just tolerated by Cuban musicians, but celebrated. Especially for artists in genres less than favoured by state-run media (certain hip-hop, rock and reggaetón groups among them), these informal routes become the principal means of audiences hearing their music.⁵ And more than simply a pragmatic concession or promotional tool for future live (paid) performance, the methods of dissemination have become, as *reggaetónero* Frank Palacios asserts, important in themselves as a signifier of a song's authenticity, popularity and relevance to a contemporary Cuban soundscape:

If a person plays a cassette at home, the whole barrio will listen to it; from there, it will spread as an epidemic ... The thermometer of popularity is that a 10 peso taxi plays your music. (Palacios, in Gámez Torres 2012, pp. 251–252)

This ongoing need to resort to these semi-legal practices presents a lineage of successive generations of Cubans who have found the means to curate vast (albeit unique) libraries of 'other' cultural materials, despite political and logistical barriers. In so doing, they have continued to construct a connection to the globalised narrative, especially when it comes to culture. More importantly, these texts have been used to define Cuban identities, to make sense of Cuban cultural and social mores and sensibilities. They are libraries of Cuban identity.

2.4 GETTING THE CONTENT, GETTING THE DEVICES

Where perhaps the growing use of USB devices might differ from its progenitors is that Cubans are more proactive in seeking out and controlling the texts that are able to be curated into these social libraries. Where mix-tapes relied on data brought in, where radio listeners relied on the familiar (albeit culturally, geographically and politically removed) gatekeepers, the USB networks have carved a number of different rivulets along which the information is allowed to flow. There are more opportunities for more Cubans to leave and return to Cuba now; the permanent exile of the earlier 'vintages' of migrants is no longer necessarily enacted, with Cubans being afforded a two-year 'grace period' to live outside the country (although the economic logistics of leaving and returning still make this route difficult). Thus many more Cubans now have experiences of countries and

cultures outside the island, and many Cubans bring back with them a raft of cultural texts that are then passed around these networks.

This ability to travel and return, as Arturo Arango writes, has been something 'writers and artists have enjoyed' with 'a greater freedom' than the rest of the population since long before this most recent apparent opening up (1997, p. 123). Vincenzo Perna concurs that, particularly since the Special Period, 'touring abroad, which for most Cuban musicians had previously been extremely difficult and cumbersome, became relatively easy and actually encouraged by the state' (2005, p. 77). Musicians are afforded, in Arango's words, a kind of 'soft exile' (1997, p. 123), allowing for longer-term residencies in other countries, for touring and performances. The global popularity of Cuban music has led a number of musicians to engage in a two-way cultural exchange, where Cuban music is promoted (with more tourists encouraged to visit Cuba, increasing this avenue of cultural communication), but also 'other' cultures are loaded onto USB devices (and other technological products) to be brought back and disseminated around friendship groups.

It is also important to note that, particularly under the presidency of Raúl Castro, there has been something of a technological 'boom'. State restrictions on purchasing a wide range of technological goods were lifted in early 2008, and though in many cases this did little more than legitimise a practice that was thoroughly underway within Cuba, it has made mobile phones, white goods and DVD players options open to many Cubans.⁶ The effect has been to make these items a much more present part of the everyday (Neill 2008). In terms of USB drives, it is this more open access that has allowed them to become a must-have accessory for many young Cubans. Alongside these changes to consumer products, Cubans (who could afford it) were also allowed entry to tourist hotels as guests. Whereas until this change only tourist-service workers (broadly defined) might have had such contact with foreign tourists, it is now a more direct mode of cultural communication.

Even for those who have continued to choose the 'harder' exile of leaving the country, as a persistent stream of Cubans do, this route does not now represent the severing of ties that it used to. There seems to be much more cultural and social contact with friends and family within the island among these more contemporary Cuban migrants, certainly compared to those who left immediately after the Revolution. Though many means of online communication suffer from both *de jure* and *de facto* restrictions and prohibitions, these later migrants have maintained communications

with family members still living on the island. Many Cubans living outside the island will be more than familiar with the common courtesy of informing others of a forthcoming trip back, and of receiving presents, parcels and care packages, which can include everything from clothes to money to music and films, to distribute to family and friends.

For those who do have limited and privileged access to the Internet (through university, technological work, journalism and so on), there is also a limited opportunity to download material from torrent sites, which is then passed around these social networks in much the same manner. The Pirate Bay was a particular favourite among university students, but, as with users of peer-to-peer sites around the world, information continually circulates about newer sites. Kickass Torrents, eDonkey and eMule have all been mentioned as sites from which television series, films, music and ebooks are downloaded. Bandwidths and download speeds are the chief obstacles and concerns for these institutions in regard to illegal downloading. With no official edict as to their legality issued by the state, sites are blocked primarily because of their use of bandwidth.⁷ So, though limited and still frustratingly slow, the increasing access to the Internet, the rolling out of public Wi-Fi hotspots, the further potential for high-speed Internet from Venezuela, all assert that Cuba is far from the technological 'lost world' of rusted Chevies and lead-lined fridges that it is often presented as being.

2.5 EXTRA-TEXTUAL DATA LOSS: FILE SHARING AND/AS COLLECTIVE IDENTITY

These digital, offline means and modes of disseminating and swapping texts, however copious the storage capacity, are still susceptible to what might be called 'extra-textual data loss'. Precisely because of their non-official status, and because of the lack of free (in both the monetary and political senses of the word) access to sources of information, texts still get to their listeners/watchers/readers without much of the data that can be taken for granted in making sense of a cultural text. So lyrics (and translations), artist's back catalogues and where texts might sit within them, relationships to other musicians, genres and scenes, specifics of place, what artists look like, who they have collaborated with, the year of release and so on are all elements that provide a framework for making sense of the text, and much of this data is not copied alongside the text itself.

This extra-textual data loss not only contextualises USB device sharing with other technological precedents, indeed this very act of working with cultural loss may be an integral aspect of Cuban cultural identity itself. In asserting this, I am referring to the continued significance of Cuban ethnomusicologist Fernando Ortiz's neologism 'transculturation', a theory that in many respects remains 'fundamental and indispensable for an understanding of the history of Cuba' (Ortiz 1995, p. 103). What might make Ortiz's seminal theory capable of both explaining the trauma of slavery and waves of migration in constructing Cuban identity and serving as a prophetic seed for understanding the mixtape is his notion of the importance of 'loss' in making sense of culture, identity and transmission:

The word *transculturation* better expresses the different phases of the process of transition from one culture to another because this does not consist merely in acquiring another culture, which is what the English word *acculturation* really implies, but the process also necessarily involves the loss or uprooting of a previous culture, which could be defined as deculturation. In addition it carries the idea of the consequent creation of new cultural phenomena, which could be called neoculturation. (1995 [1947], pp. 102–103, emphasis original)

In this sense, it is possible to see USB devices—the 'people's mixtape'—as a continuation of this transcultural practice. The process of cultural loss is integral to making new meaning—indeed, to keeping a kind of cultural relevance—within the texts. So not only are these shared texts understood and consumed in a more communal manner, they are woven into the fabric of a continually mediated, continually shifting, cultural landscape. Gleaned from a variety of sources (many of which will not be the 'primary source', but rather already copied from elsewhere), these texts are then compiled by social groups and placed into a coherent order. Some of the speculation, fabrication and incorporation may still linger—indeed, may still be necessary to contextualise the texts—even in this digital mixtape manifestation.

2.6 CONCLUSION: THE FUTURE OF FILE SHARING

Is there something in the idea that this kind of file sharing represents something of the socialist ideals of the Cuban Revolution? Is it 'The People' or just 'people' being represented in Morín Aguado's term? Does

it represent something that strengthens Cuba's ongoing socialist project, rather than weakening it by opening its citizens and its culture to the force of 'Americanisation'? As Henry Warwick suggests:

Sharing is caring. Societies that share, especially ideas, are societies that will naturally flourish. Where people have plenty of knowledge and information, sharing this cornucopia of knowledge with others less informed improves both their lots. (2014, p. 7, emphasis original)

The fact that this cultural dissemination is used by Cuban musicians and filmmakers outside of a monetary system, where cultural texts are shared without recourse to payment or copyright or the legal headaches of file sharing, means that this method of cultural dissemination is not a reactionary, anonymous information grab, but more a means of communication, a means of making sense of cultural texts in a communal manner, a means of sharing, creating, collating and constructing cultural identities around constellations of collected texts. This makes the social an integral part not only of the social network, but also of the mediation and meaning of these cultural texts.

Finally, given the ongoing political developments between the USA and Cuba at the time of writing, it might be worth asking how this kind of non-formal cultural communication might look in a post-détente Cuba. Nevertheless, it is worth doing so with this caveat in mind. Whenever I think about the future of Cuba, I am always reminded of the sage words of Lisandro Perez, who writes that 'those who have spent their lifetime studying Cuba know that predicting its future has always been a fool's errand' (2008, p. 85). This errand is made all the more foolish, perhaps, by speculating on the future development of technology (and access thereto) within a developing nation that, possibly, finally, might be on the brink of normalising relations with the USA after nearly 60 years—the final iceberg in the Cold War.

Ironically, though (official) access to these cultural texts might well be substantially improved by the ending of the blockade/embargo/censorship, actual access to the texts might be hampered. What 'duty' will there be for those with access to YouTube to load up external hard drives for others to enjoy? What need to communally translate texts that are more easily researchable, more fully comprehensible? Where texts were circulated with relative (albeit quasi-clandestine) ease, if (and when) access to the Internet becomes more widely available, might there be less inclina-

tion to help disseminate them, particularly if copyright and piracy laws begin to make an impact on the Cuban cultural understanding to a much larger extent? Will Cuban musicians themselves be so keen on disseminating their music for free, if legal downloading is a viable option for a significant potential audience? It is hard to imagine that access to the Internet, not to mention the already semi-obsolete market of hard copy (CDs, print magazines, DVDs), would be affordable to the majority of Cubans, particularly initially. And so many might find their access to foreign musics and culture diminished by opening relations, not increased.

2.7 EPILOGUE

On Christmas Day 2015, my wife and I made our first video call to Cuba, using the app 'imo'. Pixelated faces and delayed voices echoed from a park bench in Parque Vidal, Santa Clara's Wi-Fi hotspot. This park has always been a space where people have come to dance—the lampposts have in-built speakers that play the local radio station—to drink, to socialise, to be Cuban in myriad, everyday ways. It is a place where successive generations have come to share, swap and make meaning of music in a communal manner.

And over the shoulders of these pixelated people telling us of their plans for the new year, groups of people crowded around tablets, around smartphones, around iPods—all brought from without by friends and family—to continue the rico fantasies about foreign musics, to continue to collate the people's Internet. The park still has its role as a real-world site for social networking, and the texts consumed via burgeoning Internet access are still done so communally, collectively, socially. 'The people' are as integral to appreciations of the actual Internet as they have been of the preceding, ersatz Internets that they have collated and disseminated for themselves.

As Nora Gámez Torres writes, 'the democratization allowed by technology has fostered a democratization of the cultural public sphere in Cuba' (2013, p. 360). This technological democratisation has had an impact not only on music making, but music listening, audience agency and the democratisation of the construction of Cuban identities. Furthermore, this newer USB iteration is just the latest manifestation of a litany of non-formal, everyday transgressions of state infrastructure that make sense of contemporary Cuba. No doubt new methods and means of disseminating cultural texts, and compiling and curating these transcultural, collective libraries, will emerge from expanded access to the Internet in Cuba. Yet new manifestations of the 'people's Internet' will continue to disseminate this information within Cuba,

ensuring that collectivity and audience agency are still key ingredients in making cultural meaning.

NOTES

1. *Rico* is a particularly Cuban colloquialism, which can take on various meanings depending on context. Here it means ‘enjoyable’ or ‘excellent’.
2. As a further example, a rather animated ‘discussion’ broke out following the conversation I reported, between two members of this post-Revolution radio generation, as to the nationality of Tom Jones (Cubanised into ‘*Ton Yons*’). Insisted appeals that ‘*el es Yanki*’ were met with the rebuttal that his nickname was, and always had been, ‘*el tigre de Liverpool*’.
3. *Jineterismo* was a form of socially and politically permissible, and culturally complex, prostitution that became common in Cuba around the time of this influx of tourists. Cubans of both sexes would accompany tourists for the duration of their stay, in return for money, but also food, clothing and other gifts. Esther Whitfield’s essay ‘Truths and Fictions’ (2009, pp. 28–35) gives a concise and engaging account of the complexities of the term and its use in Cuban fiction.
4. The word *friki* is a rendering of the English word ‘freaky’ and is used in Cuba as an umbrella term for the island’s rock subcultures (Astley, 2014, p. 459).
5. Vincenzo Perna (2005) writes further on the musical economy in Cuba, and the ways in which artists—particularly in the genre of Timba—use these non-official methods of dissemination as promotional tools for paid live performances.
6. It is worth noting that many Cubans—especially in rural areas—are still some way from having the money or the ability to purchase these goods, and the issue of wage discrepancies as a result of access to two different currencies in Cuba is one that is still as pressing as ever.
7. As always, I am indebted to friends, colleagues and contacts within Cuba for their information on this subject.

BIBLIOGRAPHY

- Aguirre, B. (1984, November). The conventionalization of collective behaviour in Cuba. *The American Journal of Sociology*, 90(3). Chicago: University of Chicago Press.
- Aguirre, B. (2002). Social control in Cuba. *Latin American Politics and Society*, 44(2), 67–98.
- Arango, A. (1997). *To write in Cuba, today*. Durham, NC: South Atlantic Quarterly Duke University Press.
- Astley, T. (2013). *Pop music's identity crisis: Some thoughts from Cuba*. Retrieved from http://www.newleftproject.org/index.php/site/article_comments/pop_musics_identity_crisis_some_thoughts_from_cuba
- Astley, T. (2014). Porno Para Ricardo: Rock music and the 'obsession with identity' in contemporary Cuba. *Popular Music*, 33(3), 455–472.
- Astley, T. (2015). *The dream of Cuba, Cuban dreaming*. Retrieved from <http://www.havanatimes.org/?p=108863>
- Baker, G. (2011). *Cuba Rebelión: Underground music in Havana*. *Latin American Music Review*, 32(1), 1–38.
- Dolores Espinosa, M. (1991, August 15–17). *International tourism in Cuba: An economic development strategy*. Cuba in Transition Vol. 1. Florida International University, Miami. Retrieved October 12, 2010, from <http://lanic.utexas.edu/la/cb/cuba/asce/cuba1/panel.html>
- Foehr, S. (2001). *Waking up in Cuba*. London: Sanctuary.
- Gámez Torres, N. (2012). Hearing the change: Reggaeton and emergent values in contemporary Cuba. *Latin American Music Review*, 33(2), 227–260.
- Gámez Torres, N. (2013). *Technology domestication, cultural public sphere, and popular music in contemporary Cuba* (pp. 351–362). Cuba in Transition, ASCE.
- Gott, R. (2004). *Cuba: A new history*. New Haven and London: Yale University Press.
- Kapcia, A. (2005). *Havana: The making of Cuban culture*. Oxford and New York: Berg.
- Manuel, P. (1993). *Cassette culture: Popular music and technology in North India*. Chicago: Studies in Ethnomusicology.
- Morín Aguado, V. (2015). *The strange case of Cuba's Gilbert Man*. Havana Times. Retrieved February 16, 2015, from <http://www.havanatimes.org/?p=109346>
- Moses, C. (2000). *Real life in Castro's Cuba*. Wilmington: Scholarly Resources Inc.
- Neill, M. (2008). Raul Castro pushes change for Cubans. Retrieved March 4, 2015, from <http://edition.cnn.com/2008/WORLD/americas/04/26/raul.castro/>

- Ortiz, F. ([1947] 1995). *Cuban counterpoint: Tobacco and sugar* (Trans: De Onís, H.). Durham, NC: Duke University Press.
- Pacini Hernandez, D., & Garofalo, R. (1999). *Hip hop in Havana: Rap, race and national identity in contemporary Cuba*. *Journal of Popular Music Studies*, 11(12), 18–47.
- Pacini Hernandez, D., & Reebee, G. (2004). Between rock and a hard place: Negotiating rock in revolutionary Cuba 1960–1980. In P. Hernandez, F. L’Hoeste, & E. Zolov (Eds.), *Rockin’ Las Américas: The global politics of rock in Latin/o America*. Pittsburg: University of Pittsburg Press.
- Pedraza-Bailey, S. (1985). *Cuba’s exiles. Portrait of a refugee migration*. *International Migration Review*, 19(1), 4–34.
- Perez, L. (2008). Reflections on the future of Cuba. In L. Perez (Ed.), *Cuban studies* 39 (pp. 85–91). Pittsburg: University of Pittsburg Press.
- Perez Jr., L. A. (2006). *Cuba: Between reform and revolution*. Oxford: Oxford University Press.
- Perna, V. (2005). *Timba: The sound of the Cuban crisis*. Aldershot: Ashgate.
- Sánchez, Y. (2010). *Meet Pepito, the character who makes Cubans laugh*. Retrieved September 12, 2011, from <http://translatingcuba.com/?p=4314>
- Shepherd, J. (1993). Value and power in music: An English-Canadian perspective. In V. Blundell, J. Shepherd, & I. Taylor (Eds.), *Relocating cultural studies: Developments in theory and research*. London and New York: Routledge.
- Warwick, H. (2014). *Radical Tactics of the Offline Library*. Network Notebooks No. 7, Amsterdam. Retrieved February 16, 2015, from <http://networkcultures.org/blog/publication/no-07-radical-tactics-of-the-offline-library-henry-warwick/>
- Whitfield, E. (2009). Truths and fictions: The economics of writing 1994–1999. In A. Hernandez-Reguant (Ed.), *Cuba in the special period: Culture and ideology in the 1990s*. New York: Palgrave Macmillan.

Musica Analytica: The Datafication of Listening

Robert Prey

In the winter of 1938, Theodore W. Adorno arrived in New York aboard a steamer from Europe. His friend, the Austrian sociologist Paul Lazarsfeld, had successfully secured a position for Adorno on an ambitious, cutting-edge research project funded by the Rockefeller Foundation. The ‘Radio Research Project’ was an attempt to understand how Americans listened to the radio so that they could be more effectively targeted by broadcasters and advertisers. Adorno assumed the role of Chief of the Music Division.

The project’s crowning achievement was ‘Little Annie’. Officially called the Stanton-Lazarsfeld Program Analyzer, Little Annie was a simple electronic device that allowed research subjects listening to a radio show to indicate approval or disapproval with the click of a button. A rudimentary version of ‘like’ or ‘thumb’ buttons on contemporary music streaming services, Little Annie revolutionised how early radio, film and television audiences were measured.

Little Annie did not impress Adorno though. After only two years on the project, the German Marxist quit. Not surprisingly, he was positively horrified by the ‘culture industry’ that grew out of such cybernetic forms of measurement. Simply put, culture, for Adorno, is immeasurable: ‘I

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reflected that culture was simply the condition that precluded a mentality that tried to measure it' (cited in Müller-Doohm, 2005, p. 247).

What would Adorno think of the real-time data harvesting facilitated by contemporary online music streaming services? Taken together, on-demand music streaming services such as Spotify, Apple Music and Deezer, and personalised online radio services like Pandora Internet Radio, are the fastest-growing sector of the global music industry and represent the future of music distribution and consumption in a post-download era (IFPI 2015).¹ What truly distinguishes these services from previous forms of music consumption, however, is the data feedback loop they generate in real time. On contemporary music streaming services all listening time is data-generating time.

The harvesting and analysis of vast troves of listener data facilitates personalisation of the listening experience. The assumption is that the more accurately a streaming service is able to zero in on the tastes of the individual listener, the more time the listener will spend on a service, and the higher the likelihood that they will convert to a paid subscription package. This represents a sea change in how the music industry operates. With listeners drowning in choice, '[w]hat used to be a question of persuasion', writes Eric Harvey (2014), 'has become a problem of prediction'.

Personalisation on contemporary streaming platforms is not only about the music, however. To date, the subscription model remains a relatively niche market, as most listeners stream music for 'free' on ad-supported versions of these platforms.² To increase advertising revenue, streaming services attempt to target ads more precisely at listeners. They do this by drawing correlations between music taste and the demographic/psychographic characteristics of their listeners. Like the personalization of music, the targeting of ads relies on the harvesting and analysis of vast troves of data.

In what follows, I will explore what I call the datafication of listening. This transformation in how we experience music has broader social implications that I will touch on at the end of this chapter. I begin, though, by describing how such data is collected and used to personalise the listening and advertising experience at two leading streaming platforms: Spotify and Pandora Internet Radio.

3.1 SPOTIFY: THE ECHO NEST

In early 2015, Apple made headlines when it purchased Semetric, the British startup behind the music analytics service Musicmetric. This move signalled that Apple's hotly anticipated new streaming service was ready

to compete with the streaming heavyweight Spotify. Spotify itself had cemented the centrality of data analytics for the streaming sector the year before when it paid a reported \$58 million for a little-known startup called ‘The Echo Nest’ (Ingham 2015). As ‘the world’s leading music intelligence company’, The Echo Nest is a logical place to begin our look at the datafication of listening.

With a knowledge base of more than a trillion data points, covering about 37 million songs and 3.3 million artists, The Echo Nest treats music taste correlation as a scientific problem. To accomplish this seemingly Sisyphean task, The Echo Nest’s acoustic analysis software processes and classifies music according to multiple aural factors—from its pitch to its tempo to its danceability. ‘The system ingests and analyzes the mp3, working to understand every single event in the song, such as a note in a guitar solo or the way in which two notes are connected,’ explains co-founder and chief technology officer (CTO) Brian Whitman. ‘The average song has about 2000 of these “events” for the system to analyze. It then makes connections between that song and other songs with similar progressions or structures’ (as cited in Darer 2012).

At the same time, The Echo Nest conducts semantic analysis of online conversations about music that take place every day, all over the world—millions of blog posts, music reviews, tweets and social media discussions. The Echo Nest platform compiles key words found in descriptions of the music and its creators, and then links them to other artists and songs that have been described with similar key words and phrases. This data is used to determine song similarities on a more cultural level.

Once the world of music has been mapped, the task then becomes to figure out where each individual listener fits on this map, and their individual movements through music space. To this end, The Echo Nest collects a real-time, dynamic record of the type of music fan you are—your music tastes (artists and songs) and music behaviour (favourites, ratings, skips and bans). This is called your ‘Taste Profile’. Taste Profiles are organised into music segments. Such segments are categorised in numerous ways, including artist- and genre-based segments (for example, listeners who like Beyoncé but also like punk music). Other segments are built from listener behaviour (such as listeners who prefer diversity and discovery).

What has been described so far clearly has practical use for song or artist recommendations, but what about targeting ads? How can figuring out what type of listener you are help Spotify figure out what type of ads to show you? With the vast majority of listeners opting for the ‘free’,

ad-supported version, this has increasingly become a central question facing Spotify and other similar streaming services.

When it launched its ‘Music Audience Understanding’ service in 2013, The Echo Nest chief executive officer, Jim Lucchese, was quoted as saying that the company was going from ‘What’s the next song you want to hear?’ to ‘What ads are you likely to respond to?’ (cited in Hof 2013). Apparently, the two are intimately related. Co-founder Brian Whitman even argues that ‘[m]usic preference can predict more about you than anything else’ (as cited in Vanderbilt 2014).

Of course, the entire business of ad-supported broadcast radio has long been predicated on the idea that music taste is an important proxy for listener understanding, and a tool for listener segmentation. What The Echo Nest has done, however, is to take this idea out of the realm of common sense. As Lucchese puts it, ‘[s]aying you’re reaching hip hop fans doesn’t cut it anymore’ (in Hof 2013).

The Echo Nest attempts to provide a big data solution by utilising predictive modelling to analyse streaming music listening behaviour in order to identify the psychographic characteristics of listeners: personality, values, opinions, attitudes, interests and lifestyles. It accomplishes this by comparing music affinity to already known demographic and lifestyle interests. The predictive models that are developed from these incredibly large data sets are continually being trained and validated against ‘ground truth’ survey data.

In this way, The Echo Nest claims to be able to identify ‘statistically meaningful relationships between music taste and non-musical information including age, gender and dozens of lifestyle categories’ (The Echo Nest 2014). Lifestyle categories include ‘Gamers’, ‘Foodies’ and ‘Jetsetters’—consumer categories that can be targeted by relevant advertisers. Music streaming services are determined to increase the rates they can charge advertisers for the right to access their listeners. Segmenting listeners according to standard and custom-designed lifestyle categories is one way to accomplish this. With the help of The Echo Nest’s analytics, Spotify can create dynamic music segments organised by musical genres and behaviour, ad-targeting segments that include demographics and lifestyles, and custom segments based on music listening activity.

One of the problems facing the music streaming sector is that the bulk of ad-supported accounts on services like Spotify, Pandora and Deezer are inactive.³ This means that only a small minority of listeners contributes advertising value to such streaming services. These are the ‘committed,

engaged’ listeners—referred to by The Echo Nest as “high-value” listeners’—listeners who must be distinguished from the “low-value” tourists who disappear from sight’ (The Echo Nest 2013).

By developing a method to identify and represent which category each individual listener fits into, The Echo Nest claims that it can then help music streaming services ‘execute strategies focused specifically on acquiring, engaging, and maximizing the ARPU [average revenue per user] of the likely high-value users’ (ibid.). Essentially this is accomplished in two ways. First, the music artists who correlate with high-value users, and those artists correlated with users less likely to stay with the service, are identified.⁴ A particular user’s approximate future value can then be identified by the artists to whom he or she listens.⁵ Second, the patterns of musical behaviour that best predict high-value listeners are isolated. These patterns are organised into five categories that describe listener behaviour. According to a company white paper, these five categories—or ‘Taste Profile Attributes’ (TPA)—are:

- ‘Adventurousness’: how open the listener is to music outside their ‘musical comfort zone’.
- ‘Diversity’: how varied the listener’s preferred styles and genres are.
- ‘Freshness’: the listener’s relative preference for new and recent artists vs older music.
- ‘Locality’: the relative spread, worldwide, of where the listener’s preferred artists come from.
- ‘Mainstreamness’: the listener’s affinity for well-known artists vs obscure artists. (from The Echo Nest 2013, p. 4)⁶

The claim made by The Echo Nest is that, on the basis of such musical data, it can help a music service:

- Predict each user’s future value to the service.
- Identify musical characteristics of high-value listeners to help the service.
- Tailor user experience towards the high-value group.
- Identify psychographic/affinity characteristics of high-value listeners to help the service monetise that group via targeted advertising. (ibid., p. 2)

TPA were developed to help music streaming services figure out who high-value listeners will be early on, so that they can be proactively focused on, instead of those listeners who will contribute little advertising value to a service. This is an example of what communications scholar Joseph Turow (2008, p. 1) describes as ‘marketing discrimination’, whereby ‘marketers increasingly use computer technologies to generate ever-more-carefully defined customer categories—or niches—that tag consumers as desirable or undesirable for their business’.⁷

The Echo Nest (2013, p. 2) recommends that streaming services create a Taste Profile for a new user as soon as they register, as ‘services can predict from just a few data points whether that user is likely to be a future high-value listener or not’. Even before a profile can be built for a new user, The Echo Nest’s mobile software development tools can predict a user’s value by looking at the music in their mobile library and the particular device through which they are accessing the service. As Whitman revealed in an interview, ‘even the fact that you are using an iPhone instead of an Android we know a lot more about your music taste. It’s low level signals that definitely when combined tell you a lot’ (as cited in White 2014).⁸

Once a streaming service identifies and separates ‘high-value’ listeners from ‘low-value’ listeners, the next step is once again to create and identify interest and affinity segments for the high-value listeners. The Echo Nest has developed a set of affinity models to do just this.⁹ The benefit to music streaming services is obvious: brands and advertisers will pay higher ad rates if they can reach—or more accurately, *think* they can reach—high-value listeners. In short, music streaming space is not only horizontally segmented via consumer categories, it is also vertically ordered via hierarchies of listener value and projections of future worth.

3.2 PANDORA INTERNET RADIO: THE MUSIC GENOME PROJECT

Pandora Internet Radio, the leading audio streaming service in the USA, provides us with another interesting case through which to examine the datafication of listening. As with its streaming service competitors, Pandora collects users’ registration data—age, gender and zip code—and combines this data with insight into the time of day, day of the week and the device that Pandora listeners use to access the service. However, Pandora’s ability to dissect music and to draw correlations between it is dependent on its unique contribution to music taxonomy—the ‘Music Genome Project’.¹⁰

Instead of grouping songs by genre (as record shops and radio stations do), by collaborative filtering ('listeners who like this also like ...') or by ratings, Pandora organises music by musical traits, or 'genes'. Such genes could include, for example, the gender of the lead vocalist, the tempo of the chorus, the level of distortion on the electric guitar, the type of background vocals and many more.¹¹ There is no single, one-size-fits-all list of attributes that applies to all types of music. According to the patent application for the Music Genome Project, the number of genes differs widely between musical genres. Rock and pop songs have 150 genes, rap songs have 350, jazz songs have approximately 400, while world and classical music have between 300 and 500 genes (Glaser et al. 2006). For example, since rap music is lyrically driven, it requires a greater list of subsets of genes within the category of lyrics (rhyme schemes, degree of profanity etc.).

The construction of a music genome is incredibly labour intensive, as it requires intricate analysis by Pandora employees in a process that takes 20–30 minutes per 4-minute song. Pandora does not use machine listening or other forms of automated data extraction. Each attribute, or gene, in a particular song is manually assigned a number between zero and five, in half-integer increments. Such an approach to music analysis is thus very different from The Echo Nest's computer-generated models.

Once all the attributes for a particular song have been entered, the song is placed topographically within a set of other similar songs using a distance function.¹² When a listener chooses a song to start a station, behind the scenes Pandora quickly locates the Genome analysis for that song.¹³ An algorithm then compares the song to the genetic makeup of every song in Pandora's database in order to identify songs that contain similar traits. As stated in the Music Genome Project's patent application, '[t]he matching engine effectively calculates the distance between a source song and the other songs in the database and then sorts the results to yield an adjustable number of closest matches' (ibid.). Those songs deemed 'closest' constitute the new 'station'.

Once the algorithmically chosen song begins to play, the listener is able to give the song a thumbs up if he or she likes it, or a thumbs down if he or she does not. This feedback instantly changes the station's playlist. Thumbs down and that song will not play on that particular station again. Thumbs up and the listener will hear that song, and other songs like it, more frequently. Behind the scenes, this feedback affects the particular weight given to some genes over others. 'By raising the weights of genes

that are important to the individual and reducing the weights of those that are not, the matching process can be made to improve with each use' (ibid.). In other words, through continuous feedback, Pandora learns more and more about each listener's music taste, resulting in a progressively more personalised station.

Every single interaction affects the next song that is delivered to the listener. However, these interactions all carry a different weight. For example, a song skip is considered a less important indication of dissatisfaction than a thumbs down. In an interview with *Forbes*, Pandora's former chief scientist Eric Bieschke explains:

You can skip a song because, while you like it, you have simply heard it too much, or you're just not in the mood for it at that moment. And, if you're a new user, you may be looking for something very specific ... or you may just be curious about how our song selection process works. So, with a skip we have to divine its intent which is not easy. (as cited in Diallo 2013)

However, this does not mean that the skip is unimportant as a data point. 'Rare signals (user interactions) are very valuable and have big implications,' Bieschke points out. 'So if you're a longtime user who never hits the skip button and then you suddenly do it, we pay close attention to that and respond accordingly' (ibid.). Bieschke further reveals that for a brand new user, as few as three user interactions can give Pandora most of what it needs to know to deliver the best results.

3.3 DATA-DRIVEN ADVERTISING ON PANDORA

Pandora has discovered 'that the world of playing the perfect music to people and the world of playing perfect advertising to them are strikingly similar' (Singer 2014). Advertising typically accounts for over 80% of Pandora's yearly revenues, as only a minority of Pandora listeners choose to pay \$36 annually in order to subscribe to the service's ad-free version (Pandora Internet Radio 2015). This makes Pandora much more dependent on advertising than Spotify.

In a New York Times article that explores Pandora's ability to target its listeners with the right ads at the right moment, the reader was asked to imagine the following scenario:

Consider someone who's in an adventurous musical mood on a weekend afternoon ... [T]his listener may be more likely to click on an ad for, say,

adventure travel in Costa Rica than a person in an office on a Monday morning listening to familiar tunes. And that person at the office ... may be more inclined to respond to a more conservative travel ad for a restaurant-and-museum tour of Paris. (Singer 2014)

By measuring the frequency of ad clicks and other methods, Pandora is continuously testing hypotheses such as this.

Pandora has also been digging into its first-party data in order to segment listeners into categories that online advertisers are accustomed to.¹⁴ In late 2013, the service began promoting to ad agencies its first two audience segments—Hispanic listeners and a subsegment for Spanish-speaking listeners.¹⁵ In order to create these two categories, Pandora referred to US census data to locate zip codes with a high percentage of Hispanic or Spanish-speaking residents. Pandora then cross-referenced this information with its user registration data to figure out which listeners fit into this ethnic category. For example, Pandora may have a pool of two million listeners that it knows are Hispanic. By then looking closely at the radio stations listened to by this sample, it can locate other Hispanic listeners across its user base of 250 million-plus listeners (see Joe 2014). Pandora's director of product management Jack Krawczyk has claimed that the company's Hispanic and Spanish-speaking listener segments have proved to be 'at least 10% more accurate than those created based on third-party data' (as cited in Peterson 2013).

Pandora has been steadily rolling out new ad-targeting segments. According to Krawczyk, its goal is to add two new segments every four to six weeks. After the initial success with segmenting Hispanic and Spanish-speaking listeners, the plan is to segment listeners with high household incomes, identified via a combination of census data, registered user information and music taste. Interestingly, Pandora has learnt that listeners who exhibit more eclectic music tastes tend also to have higher incomes than the average listener. According to the anthropologist Nick Seaver, Pandora applies a diversity metric to rank the range of a particular listener's music taste. 'A higher diversity score', remarks Seaver, 'should indicate a higher social status, which means that these listeners can have more expensive ads sold against them' (as cited in Harvey 2014).

Relatively simple correlations between age and music listening behaviour can also provide highly informative insights, according to Pandora. For advertisers looking to reach the parents of young children, for example, Pandora isolates listeners of a certain age and then further segments

those who have listened to children's music. Even the child's age can be estimated by factoring in how long it has been since they last listened to a children's station. Finally, survey data has also been effective in identifying useful correlations. According to Krawczyk, tens of thousands of users were surveyed, and it was discovered that men between the ages of 18 and 34 years who listen to electronic music were the best targets for video game ads (as cited in Peterson [2013](#)).

3.4 POLITICAL AD TARGETING

It is clear that music streaming services have made much of the assumption that our taste in music reveals who we really are. It should therefore not be a surprise to learn that the relationship between music taste and political values is a hot topic for music data analysis. While The Echo Nest has modelled the relationship between music taste and political affiliation on its blog (see Whitman [n.d.](#)), Pandora Internet Radio has taken this one step further. In early 2014, Pandora launched a new ad service aimed at helping political advertisers target Democrat or Republican voters.¹⁶

When registering for a Pandora account you are not required to divulge your politics. As a result, Pandora must determine a listener's political preferences through other means. The service first looks at election result data for a listener's zip code, determining whether a listener's county leans Republican or Democrat. While Pandora has permitted political advertisers to target users based on their zip code since 2011, it has more recently begun supplementing this data with information about users' music tastes and other attributes to create a more valuable profile for advertisers. For example, if you are a staunch country music lover but live in an electoral district that leans Democrat, Pandora claims to be able to predict—with between 75 and 80% accuracy—that you likely vote Republican (see Dwoskin [2014](#)).

It is perhaps no surprise that country music fans lean Republican whereas jazz, reggae and electronic music fans tend to vote for Democrats. However, genre taste can only reveal so much. Pandora claims that it can more precisely locate listeners on the political spectrum by looking at how diverse their music tastes are and the type of music they prefer within that range. As Tom Conrad, former CTO and executive vice-president of product at Pandora explains:

it's not just what genres you like but how much you prefer them within your listening spectrum ... A preference for jazz is only a strong indicator

if it takes up around 35% of what you listen to each month. If you have a jazz station but only listen to it 5% of the time, it isn't a good indicator. (as cited in Joe 2014)

3.5 CONCLUSION

The datafication of listening is a remarkably recent development with transformative implications for marketers, the music industry and music fans. Since the invention of the phonograph in 1877, the individual act of listening to recorded music has been largely shrouded in mist, hidden from the prying eyes of marketers and the music industry.¹⁷ What people listened to, how often they listened to it, when and where it was listened to, were always at best a guess. Even after Nielsen began employing the SoundScan media measurement system in 1992, the music–data feedback loop did not extend beyond the record store checkout counter.¹⁸ What became of an album was unknown once it left the record shop. Perhaps it became the soundtrack for a teenage summer. Or maybe it was purchased as an ill-advised gift, never to be listened to again. The fog that blanketed the radio audience was almost as impenetrable. It has always been very difficult to measure terrestrial radio listenership. Radio ratings are thus, at best, estimates. To borrow Philip Napoli's (2003) useful distinction, the *measured* radio audience is markedly distinct from the *actual* audience.

With online music streaming, however, all listening time has become data-generating time. As Paul Lamere of The Echo Nest discloses, '(e)very time a listener adjusts the volume ... every time they skip a song, every time they search for an artist, or whenever they abandon a listening session, they are telling us a little bit about their music taste' (Lamere 2014). Every signal feeds algorithms that work towards building a profile. Without knowledge of how these processes take place, we are being classified and categorised, perhaps as a 'Jetsetter', maybe as a 'Gamer', and as either a 'low-value listener' or a 'high-value listener'.

Is our taste in music so easily predicted from the other attributes and characteristics that define us? Do our predilections for particular brands match up with our preferences for certain bands? In a review essay that neatly summarises recent debates in the sociology of music consumption, Nick Prior (2013, p. 189) writes that 'music itself and our encounters with it are far more complex than can be conveyed through the idea of social origins, let alone statistical data sets and genre categorizations'.¹⁹ Prior's

assessment may be music to the ears of readers disturbed by the description of how streaming listeners are being measured, categorised and targeted. Nevertheless, particularly for an ad revenue-dependent streaming service such as Pandora, the point is not so much whether ‘reality’ is being accurately reflected, but whether advertisers (and investors) are sufficiently convinced of the service’s data wizardry.²⁰

Furthermore, data is never simply constituted *by* ‘reality’, it is always *at the same time constitutive of* ‘reality’.²¹ Following Eli Pariser’s (2011) persuasive argument in *The Filter Bubble*, the organisation of taste through increasingly detailed measurement and personalisation appears to be leading us towards an increasingly segmented society. At an individual level, the ads that result from Spotify’s mischaracterisation of you as a ‘Gamer’ may cause mild annoyance, but from a sociological perspective, right or wrong, the result is the same—further segmentation. Algorithms have structural implications because they stack onto and amplify already existing differences. Thus, the categorisation of listeners’ ‘musical identity’ not only *reflects* social divisions (between ‘high-value’ and ‘low-value’ listeners, for example), but *reinforces* and even produces new divisions.

Finally, as with every case of data mining, there is also the issue of ‘function creep’—the slow but steady widening of a system or technology beyond its originally intended purpose. Listener data may sit in Spotify or Pandora’s database, or it may one day migrate out, as previously undetermined uses for correlating music taste with some other aspect of our lives are discovered. For example, data collected for the purpose of recommending music may be found to deliver a reliable predictor of financial solvency, IQ score or relationship status. What if a taste for early ’90s Nu Metal indicates a higher propensity to default on a debt repayment? This example may seem far-fetched, even ridiculous, but there are already scores of companies that correlate data on a bewildering array of indicators in order to assess any applicant’s credit worthiness.²² Discovering unanticipated patterns is precisely what data mining is designed to do. As Mark Andrejevic (2014, pp. 179–180) writes:

Perhaps some combination ... of my tastes in food, my birthplace and the climate in the city where I currently live, groups me with others who are proven susceptible to a particular type of illness. The database can determine this long before anyone figures out why. For many of those involved, the why will be irrelevant—what will be important is the probability of the prediction.

At this point we can only guess who might be interested in knowing more about our music tastes, and for what purposes. Once data is released, though, there is no taking it back.

Data-driven music streaming services are but one example of how we are increasingly generating digital traces as we go about our everyday lives, engaged in everyday activities. As a result, the datafication of listening has potential implications that extend far beyond music or ad personalisation. These are not issues that Adorno could likely have imagined in the early 1940s, when he resigned from his position at the ‘Radio Research Project’. Little Annie, it appears, grew up to bequeath a large extended family of methods; methods that measure what Adorno always insisted was immeasurable.

NOTES

1. See also Chaps. 4 and 10.
2. For example, leading streaming service Spotify has at the time of writing over 30 million paid subscribers, out of a total of about 100 million active users. Even with only a roughly 30% ratio of paying users to total users, this is high compared to most of Spotify’s competitors. Pandora Internet Radio has converted a mere 5% of its ‘free’ listeners to its subscription plan (Pandora Internet Radio 2015). See also Chap. 4.
3. A study conducted by MIDiA Consulting suggests that on ad-supported music services in 2012, between 60 and 80% of accounts were essentially inactive (cited in The Echo Nest 2013, p. 2).
4. In a demonstration for an unidentified ‘partner service’, The Echo Nest determined that the ‘high-value’ artists for this service were Florence + The Machine, Bon Iver, fun., Kid Cudi, Ed Sheeran, The Kooks, Of Monsters and Men, Angus & Julia Stone, The Naked And Famous and The Black Keys. ‘Low-value’ artists for this service were Katy Perry, Lil Wayne, Red Hot Chili Peppers, Train, Benjamin Francis Leftwich, Hans Zimmer, Wale, Rusted Root, Swedish House Mafia and The Wanted (The Echo Nest 2013, p. 3).
5. The Echo Nest also shows music streaming services how to employ this knowledge to attract and retain high-value listeners by, for example, promoting ‘high-value’ artists (artists most closely associ-

ated with high-value listeners) through homepage recommendations and in their marketing.

6. The Echo Nest acknowledges that different services, with different users, will need to determine the relative importance of each these attributes in distinguishing between ‘high-value’ and ‘low-value’ listeners. Thus, the TPA can be tuned to deliver the specific parameters (‘more adventurous’, ‘less mainstream’, ‘more diverse’ etc.). Depending on the service, The Echo Nest can also adjust the relative value of music listening behaviour, for example prioritising purchases over shares for services that also sell MP3s.
7. Marketers commonly use the terms ‘targets’ and ‘waste’ to distinguish between these two sets of consumers.
8. Brian Whitman suggests that the future of listener understanding and segmentation will get deeper into how, when and where people actually interact with music. As he noted at a talk at Microsoft, ‘not just what they skip, ban and recommend, but when? Did they just break up with their girlfriend?’ (as cited in Vanderbilt 2014). Much of this scenario is dependent on smartphones continuing to be the critical tool through which to harvest implicit signals that aid in generating contextual knowledge. ‘If you look where the music industry is going,’ Paul Lamere told *Fast Company*, ‘music in the future will be played almost entirely on people’s phones. And your phone knows a lot about you ...’ (as cited in Brownlee 2014).
9. In a company white paper, The Echo Nest reported on an exercise conducted for one of its partner music streaming services. The task was to identify the interests and affinities of this particular service’s highest-value users. The interests and affinities most closely related to these users were social causes, concerts, alcohol, green/eco, outdoor adventure and fashion and style. This of course is information highly valuable to the service, and to any potential advertiser interested in promoting its products or services (see The Echo Nest 2013, p. 5).
10. In 2015 Pandora purchased the music analytics company Next Big Sound to provide even greater insight into the listening activities of its users. According to Billboard, ‘Pandora also plans to use Next Big Sound to help brands choose artists with which to partner and analyze the results’ (Peoples 2015).
11. For more detail, see Glaser et al. 2006.
12. In mathematics, a distance function is a [function](#) that defines a [distance](#) between elements of a [set](#).

13. Pandora is not able to play a specific song on demand because it is classified as a non-interactive streaming service under the Digital Millennium Copyright Act of 1998.
14. At present Pandora's rich data set is only being used in-house to attract advertisers who desire a more targeted audience than traditional terrestrial radio provides. However, according to an article in the trade journal *Advertising Age*, Pandora is open to the possibility of using its data to target listeners on other sites or apps (see Peterson 2013).
15. The popularity of Pandora among the Hispanic population in the USA no doubt drove this decision. The Hispanic market accounts for 10 million monthly users, or 20% of Pandora's total listening audience. What is more, Hispanic listeners are younger, more mobile and more socially connected than the average Pandora listener (see Heine 2012).
16. The pioneer in creating demographic profiles for political advertisers is of course Facebook. During the 2008 US Presidential election, political firms began to target Facebook users by mining the wealth of data that users reveal about their interests and location. Political ads do not come without a cost, however. In its 2013 Financial Results Conference Call, vice-president of Pandora Dominic Paschel admitted that 'the number of calls to customer service goes up dramatically when we accept political ads'.
17. Certain aggregate listening experiences have generated real-time data in the past. For example, in the heyday of the jukebox, the music tastes of precise locales could be determined thanks to mechanised play meters that were built into the boxes (Harvey 2014).
18. See Chap. 10 in this volume.
19. In many ways, what The Echo Nest and its competitors do could be characterised as the big data update to the type of research that sociologists of music consumption have conducted for years. Particularly since *Distinction*, Bourdieu's (1984) landmark study on cultural consumption, scholars have busied themselves constructing or critiquing models relating music tastes to socio-economic status. Exactly how the whole music/society jigsaw puzzle fits together—or indeed if it actually exists in the first place—has been a matter of intense debate (see Atkinson 2011; DeNora 2000; Peterson and Kern 1996; Prior 2013).
20. Thank you to one reviewer for pointing out this distinction.

21. Relatedly, it is still an open question whether, or how, knowledge among streaming listeners that every action is being monitored and assessed might affect listening behaviour itself.
22. For example, the German company Kreditech claims to use up to 8000 data points to assess an application for a loan. This includes information that Kreditech gathers from applicants via Facebook, eBay or Amazon accounts, and even information on precisely how a customer fills out the online application. For example, applicants hurt their chances of receiving a loan if they fill out an application by typing it in all caps, or with no caps (Lobosco 2013). Recently, Facebook announced that it had patented technology that lets lenders examine the credit ratings of a borrower's Facebook friends to determine whether he or she is a good credit risk (Bhattacharya 2015).

BIBLIOGRAPHY

- Andrejevic, M. (2014). Alienation's returns. In C. Fuchs & M. Sandoval (Eds.), *Critique, social media and the information society* (pp. 179–190). New York: Routledge.
- Atkinson, W. (2011). The context and genesis of musical tastes: Omnivorousness debunked, Bourdieu buttressed. *Poetics*, 39, 169–186.
- Bhattacharya, A. (2015, August 4). Facebook patent: Your friends could help you get a loan. Retrieved August 30, 2015, from <http://money.cnn.com/2015/08/04/technology/facebook-loan-patent/>
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Cambridge, MA: Harvard University Press.
- Brownlee, J. (2014, February 5). The next big thing in music? Apps that read your mind. Retrieved April 1, 2015, from <http://www.fastcodesign.com/3025991/the-next-big-thing-in-music-apps-that-read-your-mind>
- Darer, M. (2012, September 21). The Echo Nest: Redefining The Internet music experience. Retrieved May 19, 2015, from <http://dyn.com/blog/dyn-dns-client-the-echo-nest-internet-music-streaming-spotify-pandora-online/>
- DeNora, T. (2000). *Music and everyday life*. Cambridge: Cambridge University Press.
- Diallo, A. (2013, October 6). Pandora radio's dominance built on big data edge. Retrieved May 22, 2015, from <http://www.forbes.com/sites/amadouidiallo/2013/10/06/pandora-radios-dominance-built-on-big-data-edge/>
- Dwoskin, E. (2014, February 13). Pandora thinks it knows if you are a republican. Retrieved May 22, 2015, from <http://online.wsj.com/news/articles/SB10001424052702304315004579381393567130078>

- Glaser, W. T., et al. (2006, February 21). Consumer item matching method and system. U.S. Patent No. 7,003,515. Retrieved from <http://www.google.com/patents/US7003515?dq=7,003,515>
- Harvey, E. (2014, April 16). Cover story: Station to station: The past, present, and future of streaming music. Retrieved March 14, 2015, from <http://pitchfork.com/features/cover-story/reader/streaming/>
- Heine, C. (2012, October 5). Why Pandora Ads target Hispanics and Spotify's don't. Retrieved May 22, 2015, from <http://www.adweek.com/news/technology/why-pandora-ads-target-hispanics-and-spotifys-dont-144284>
- Hof, R. (2013, November 21). Like these songs? Then maybe you'll like this ad. Retrieved May 19, 2015, from <http://www.forbes.com/sites/roberthof/2013/11/21/like-these-songs-then-maybe-youll-like-this-ad/>
- IFPI, Digital Music Report. 2015. Retrieved February 2, 2016, from <http://www.ifpi.org/downloads/Digital-Music-Report-2015.pdf>
- Ingham, T. (2015, May 10). Turns out Spotify acquired the Echo Nest for just €50m—*Music business worldwide*. Retrieved August 1, 2015.
- Joe, R. (2014, January 7). CES 2014: Why Pandora is happy that cookies are disappearing—AdExchanger. Retrieved May 22, 2015, from <http://www.adexchanger.com/digital-marketing-2/ces-2014-why-pandora-is-happy-that-cookies-are-disappearing/>
- Lamere, P. (2014, January 14). The zero button music player. *Music Machinery*. Retrieved April 1, 2015, from <http://musicmachinery.com/tag/zero-ui/>
- Lobosco, K. (2013, August 26). Facebook friends could change your credit score. Retrieved August 30, 2015, from <http://money.cnn.com/2013/08/26/technology/social/facebook-credit-score/index.html>
- Müller-Doohm, S. (2005). *Adorno: A biography*. Malden, MA: Polity Press.
- Napoli, P. M. (2003). *Audience economics. Media institutions and the audience*. New York: Columbia University Press.
- Pandora Internet Radio. (2015). Annual report 2015. Retrieved from <http://investor.pandora.com/phoenix.zhtml?c=227956&p=proxy>
- Pariser, E. (2011). *The filter bubble: What the Internet is hiding from you*. UK: Penguin.
- Peoples, G. (2015, May 19). Pandora acquires next big sound | *billboard*. Retrieved February 3, 2016, from <http://www.billboard.com/articles/business/6568814/pandora-acquires-next-big-sound>
- Peterson, T. (2013, November 14). Pandora looks past the tracking cookie by mining user data. Retrieved May 22, 2015, from <http://adage.com/article/digital/pandora-past-tracking-cookie-mining-user-data/245269/>
- Peterson, R. A., & Kern, R. M. (1996). Changing highbrow taste: From snob to omnivore. *American Sociological Review*, 61, 900–907.
- Prior, N. (2013). Bourdieu and the sociology of music consumption: A critical assessment of recent developments. *Sociology Compass*, 7(3), 181–193.

- Singer, N. (2014, January 4). Listen to Pandora, and it listens back. Retrieved May 21, 2015, from http://www.nytimes.com/2014/01/05/technology/pandora-mines-users-data-to-better-target-ads.html?_r=2&
- The Echo Nest. (2013, August 12). White paper: How music services can acquire, engage, and monetize high-value listeners. Retrieved May 19, 2015, from <http://musicalidentity.echonest.com/post/58057887326/engagement-white-paper>
- The Echo Nest. (2014, January 27). Music audience understanding. Retrieved May 19, 2015, from http://corpcdn.echonest.com.s3.amazonaws.com/filer_private/2014/01/27/audience_understanding_finalx.pdf
- Turow, J. (2008). *Niche envy: Marketing discrimination in the digital age*. Cambridge, MA: MIT Press Books.
- Vanderbilt, T. (2014, February 17). Echo Nest knows your music, your voting choice (Wired UK). Retrieved May 19, 2015, from <http://www.wired.co.uk/magazine/archive/2014/02/features/echo-nest/viewall>
- White, E. (2014, March 26). The Echo Nest CTO Brian Whitman on Spotify Deal, man vs. machine, why Pandora ‘Freaks’ him out (Q&A). Retrieved May 14, 2015, from <http://www.billboard.com/biz/articles/news/digital-and-mobile/5944950/the-echo-nest-cto-brian-whitman-on-spotify-deal-man-vs>
- Whitman, B. (n.d.). How well does music predict your politics? Retrieved May 19, 2015, from <http://notes.variogr.am/post/26869688460/how-well-does-music-predict-your-politics#diverse>

The Legacy of Napster

Matthew David

This chapter is primarily concerned with the economic question of scarcity, and the possibility that online distribution abolishes such scarcity. Online digital distribution threatens/promises to abolish scarcity in relation to recorded music. In part this followed the logic of all technologies that increase productivity and hence disrupt established markets. Earlier technical shifts that seemed initially to challenge vested interests (such as the development of print media—Habermas 1962; and telephony, radio and television—Wu 2011), have been controlled in the interests of profit. However, free sharing online continues to disrupt even the new business models that have arisen in its wake. Technical developments from diverse actors have come together in an array of alternative forms with divergent consequences that remain unresolved. A legal game of cat and mouse led to forms of distribution that have no specific technical logic except in relation to particular attempts at control.

This chapter addresses streaming, which has emerged in the musical field as a legal form of digital music access, just as it has emerged as the primary mode of unlawful access in relation to live digital sports broadcasting. The chapter then considers the question of whether legal music streaming services can, as they claim, tame unlawful access to music. To

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date, legal music streaming services have failed to win over audiences to a subscription-based, user-pays model of access. Legal services simply emulate the free sharing model (which is advertiser funded). Advertising revenue from legal streaming services does now flow to rights holders, but this rarely filters meaningfully down to artists, so it only replicates their existing exploitation. Three-quarters of legal streaming service users, and all non-legal service users, do not pay. Gaining free access to music continues therefore to leave service users with more money to pay artists for live performance—the primary consequence of digital sharing (Krueger 2004; Krueger and Connolly 2006). As such, artists continue to benefit. The chapter covers the history of recorded music, the rise of commercial digital formats and then of free file-sharing alternatives. This is followed by a discussion of the legal and commercial cat-and-mouse struggles between record companies and free sharers, culminating in the rise of today's free but legal streaming services. Parallels and distinctions are drawn between such digital music streaming services and radio, as well as (more interestingly) live streaming in relation to live sports broadcasting. Where streaming is seen as a potential benefit to the recording industry, it is seen as the primary threat to sports broadcasters. This chapter will argue that it is precisely because live streaming is a threat to business as usual in today's digital sports broadcasting industry that it is not a credible solution for the recording industry in relation to the rise of free music sharing online. However, precisely for this reason—that audiences do not have to pay for mediated access—streaming (and free sharing more widely) actually benefits performers, because money not spent on mediated access leaves more money to be spent going to live events (for which performers are better paid).

4.1 CONTROL, FORMAT AND CONTENT

Recording music allows repetition without the need to repeat the labour required to make it. This has the effect of reducing scarcity and widening the audience able to access the sound. This reduction of scarcity has always been contradictory from the point of view of those who seek to make a living from making music, both musicians themselves and those involved in selling access to it. Recordings increase the potential scale of an audience, but such widening of distribution also creates a question of control over the distribution. The production of copies increases the potential audience, but also increases the risk that the increase cannot be controlled.

The advent of recording, telephony and then radio saw conflict over such access and control, with live performers resisting the attempt by record and radio distributors to gain access to their content, and/or to distribute it without payment to performers, while early recording and radio distributors sought to limit the control performers had over access to and distribution of their work (Kirton 2015). Later conflicts over tape, the cassette, the CD and the Internet in many respects repeated such conflicts over access and control.

Prior technologies of recording and distribution (from the earliest recording drums and discs, through to radio and the cassette), while disruptive in their inception, were eventually incorporated within highly profitable reconstructions of ‘the recording industry’ (Kirton 2015). Digital recording reversed this pattern. The CD enabled an unprecedented profit storm for the established players in the recording industry (Sandall 2007). Only later, when digital storage was fused with online distribution, did digital recordings usher in a fundamental threat to record companies. Free Internet-distributed digital music remains an intractable challenge to scarcity and therefore profitability. New business models have arisen in response to the rise of free digital music sharing. These seek to revive the commercial recording industry. At present, the legacy of Napster (the earliest mass access digital music sharing service) is a parallel economy. Free access has compelled a reinvention of commercial recording business models, while attempts to defend the copyright-based recording industry have failed to eliminate free sharing. Technical and legal monopoly controls have been rendered porous, leading to a post-scarcity economy. A market exists only to the extent that paid services can compete with (rather than prohibit) free alternatives. Audiences may be persuaded to pay for what they can otherwise access freely by other means. They may not.

4.2 NOT QUITE P2P

The paradoxical nature of distribution technologies (whether these be records or the Internet) is that they increase the scope of a potential market while at the same time enabling uncontrolled circulation and access. This is only an extension of the essential paradox of technology itself within market economies. Technology increases productivity and hence increases the potential for making more things that can be sold. Yet such productivity creates the risk to producers, and benefit to consumers, that increasing output will force prices to fall as supply outstrips

demand. However, simple linear projections of such tendencies towards overproduction, and for the rate of profit to fall, do not hold true. This is because, as Marx (1995, pp. 438–457) noted (rather problematically for his own account of historical development), all such tendencies are subject to significant counter-actions. Prices routinely stay above the average cost of production through particular firms achieving intensification of work, depression of wages, reducing the cost of capital stock, increasing market size and so on. In Marx's nineteenth-century capitalism, price was also held up through various protectionist measures and monopolistic practices still prevalent today. Capitalism (then and now) is about protecting property, and if this means suspending markets through various forms of prohibition, this is what happens. Markets are primarily advanced to discipline labour, while property protection routinely involves market suspension (David and Halbert 2015). In the domain of informational goods in the twentieth and twenty-first centuries, the essential vehicles for maintaining protection over property and profits from the threat of market competition are intellectual property rights. In the domain of music, that means copyright.

In the late twentieth century, informational media corporations undertook massive waves of technical and economic integration. Technical integration took the form of increased digitisation of content and the development of increasingly efficient modes of compression to enable more integrated storage and distribution (David and Halbert 2015). Economically, new extensions and the global harmonisation of intellectual property (IP) laws (via the newly formed World Trade Organization and its 1994 Agreement on Trade-Related Aspects of Intellectual Property Rights or TRIPS) saw a wave of horizontal and vertical mergers and take-overs to create today's global cross-media network enterprises (Castells 2009). Digital storage, compression and distribution reduced costs and compelled user reformatting. At the same time as globalisation increased audience size, technical and legal (IP) monopolies restricted competition. This led to a perfect profit storm (Sandall 2007).

However, commercial developments in digitisation were paralleled by non-commercial developments, such as in the creation of the Internet out of US military and state research, and of the World Wide Web from European government-funded scientific research. The advent of search and share software that could combine the technical efficiencies of commercially developed digital compression/storage and state-funded digital distribution platforms challenged the digital profit storm by freeing

content from both technical and legal monopoly control. Nonetheless, it should be noted that Napster, the earliest large-scale sharing service, was not a ‘peer-to-peer’ distributed service, fully extending some inevitable logic of the Internet. It used the same central server architecture that its 1999 sibling Facebook continues to use today (David 2010, p. 38). What still serves Facebook in its desire to filter and mine its users’ content was Napster’s Achilles’ heel.

4.3 LEGAL CAT AND MOUSE: NOT A TECHNICAL NECESSITY

That Facebook retains a central server architecture, while copyright-infringing free music sharing services do not, reflects an ongoing legal cat-and-mouse history, and amply demonstrates that technical development does not reflect any simple necessity, but rather a complex and contingent set of moves and counter-moves by various actors. In 2001, Napster was successfully prosecuted in the US courts for contributory infringement because infringing copies of music files passed directly through its central server on route between uploaders and downloaders, rather as a ‘fence’ is said to be ‘handling stolen goods’. The successful targeting of Napster’s central server led to the development of increasingly distributed forms of software. Services like Grokster, Morpheus and Kazaa moved from requiring users to locate one another via the service’s server but then sending files independently, towards an even more distributed model where the provider made the software available but then users interacted entirely independently of the supplier (David 2013). Service providers were still subject to legal attack if they promoted infringement on their own web-pages, but this simply led to such promotion being removed (however honestly) or in ‘pirated’ versions of the software (Kazaa lite, Kazaa ++ and so on) being distributed independently of their original commercial developers.

However, the increased detachment of software providers from users’ actions led to legal attacks shifting towards uploaders, the users who were said to be either making infringing content available or ‘distributing’ it (a more serious offence). Services like Morpheus and Kazaa, while themselves increasingly immune from legal action, made it easy to locate uploaders precisely because they were designed to allow potential downloaders to find such providers of content (David and Kirkhope 2004).

Rights holders simply had to use the sharing software as users would in order to locate the IP (Internet Protocol) addresses of uploaders whom they could then attempt to prosecute (Wall 2015). Successful prosecutions in the mid-2000s (particularly in the USA) encouraged the development of (and migration of users towards) ‘torrent’ services, which distributed not only access but also supply. A download would be spliced together from a ‘torrent’ of elements from a host of uploaders. Any one uploader would only be contributing a fraction of a file, and hence remained below the level of legal liability. In addition, with a file being pieced together from multiple sources it was impossible to tie up the act of ‘making available’ (not quite the full act of infringement) with ‘distribution’ (the more serious offence). The most famous torrent tracker locating website is The Pirate Bay (TPB). While shielding uploaders from the law, torrent services required a reversion to having users locate content via the tracker locating website’s central server, making tracker sites legally vulnerable. This led to the successful prosecution and imprisonment in Sweden of TPB’s founders in 2009. However, the site simply relocated and distributed its servers to a variety of less regulated jurisdictions and remained in operation. Attempts to prevent access to sites that enable the distribution of infringing content now involve rights holders seeking court injunctions requiring Internet service providers to block access to sites that are said to enable infringement (David et al. 2017). However, national jurisdictions that enforce such blockages are easily circumvented using virtual proxy networks and onion routers, with the countries using such blocking tactics being those that have also seen the highest uptake of virtual private networks (VPNs) and re-routing services and software (Brown 2015).

4.4 COMMERCIAL CAT AND MOUSE TOO

Prior to the advent of file sharing, record companies maintained a prohibition on the release of their content via any kind of cross-company Internet downloading service. The loss of control that such a joint platform would involve appeared to be a serious threat to their technical and legal monopoly-based business model. For as long as they could, record companies ensured that any such scheme was prevented. While the development of common compression formats (such as the MP1–4 formats) allowed content industries to distribute music files internally for the purpose of transferring material to different locations within increasingly global operations (such as for production, mastering and manufacture),

the potential of compressed files as a means of producing a more ‘efficient’ mode for consumers to access content was not pursued, as it challenged corporate control relative to audiences. It was only the development of free IP-infringing services (such as Napster and those services that followed) that ‘let the cat out of the bag’, as it were. Apple’s iTunes presented record companies with a legal alternative to what they could no longer prevent legally or technically. It is virtually inconceivable that iTunes would have been accepted by record labels had free sharing alternatives not forced their hand (England 2015). As such, one of the fundamental legacies of Napster is iTunes.

In addition, the legal cat-and-mouse struggle had another commercial consequence. New forms of infringing service—emerging to evade the legal bottlenecks targeted by rights holders—produced new formats to which commercial actors have had to adapt. The most interesting of these today is ‘streaming’, where users access content online but do not make a copy. Streaming is significant because two very different legal pathways have been followed. One is in live digital sports broadcasting; the other is in music. This chapter will focus primarily on music, but will also examine the parallel case of live sports television.

4.5 SPOTIFY: THE TAMING OF ‘FREE’ OR ITS TRIUMPH?

Spotify originated in Sweden in 2006, was first launched commercially from London in 2008, and has since then developed its market across Europe and the Americas in particular. Its business model is to allow users to stream music in exchange either for a ‘premium’ subscription payment or for no payment but with a requirement to hear advertising every so many (usually three) tracks. Since 2008 the number using the service has risen to 75 million (Spotify 2015). As the number of users has increased, a consistent proportion, one-quarter, has opted to pay the ‘premium’ subscription charge. Most use the service for free in exchange for being subjected to advertising. Variations in what counts as a ‘premium’ subscription muddy the water slightly, as discounted payment options mean that not all the 25% are paying the full ‘premium’ rate. Variation in the premium rate itself (\$9.99, £9.99 and €9.99) confuses matters further. Also, variation exists in what non-paying users are able to access. Spotify has tried various means to press users towards the ‘premium’ payment option, by limiting what non-paying users can access in terms of hours of use and numbers of plays per month of any specific track they can listen

to. However, these restriction attempts are difficult to sustain, as users can simply choose from a range of alternative legal streaming services if they find that attempts to encourage premium subscription payments through reductions in free service quality diminish their user experience (iSkysoft 2015). As the cat-and-mouse history of free sharing has shown, each new attempt to regulate or discipline audience behaviour has incentivised the creation and uptake of new, ever more distributed modes of sharing and evasion.

This tension between wanting to increase subscriber payments and not wanting to push users and prospective users away towards alternative free services (infringing or otherwise) highlights the position that Spotify occupies and the gap that it seeks either to bridge, or at least avoid falling into. On the one hand, as pointed out by singer and guitarist Mike Vennart (2012), Spotify's introduction in some territories has coincided with a decline in use of existing pay-for-access/recording services (such as iTunes and CD sales). Lucy England (2015) notes the even greater problem faced by Apple's streaming service Beats. Beats (which Apple bought and relaunched) has pursued a paid subscriber-only model, but this places it in competition with its own iTunes sales (which have been falling ever since the introduction of Spotify). However, at the same time it has been observed that in other locations the introduction of Spotify has seen a reduction in the use of illicit free sharing services like The Pirate Bay (Ingham 2013). To the extent that the former migration is taking place, where Spotify draws to itself users who had previously been accessing music by paying for it (online or in physical form), Spotify is simply fishing for users from within an existing pool of paying customers. Three-quarters of Spotify users are not paying to access content. Payment flows to rights holders from Spotify's advertising revenues, but at a very low rate per play. If these users reduce their recorded music purchasing as a result of such legal free-access services, a decline in what rights holders receive from iTunes and physical sales is unlikely to be made up for by Spotify's advertising revenues. On the other hand, the alternative migration—where a user was formerly accessing music from a copyright-infringing service (like TPB)—would mean that advertising revenues that were previously going to the infringing service provider (which was not passing them on to rights holders) will now go to Spotify, which will be passing on a large part to IP holders.

Tim Ingham (2013) argues that Spotify is taming the digital domain in creating a format that allows IP holders to harvest revenues from ser-

vice providers, but if a legal service that remains predominantly free to access does see a reduction in other legal means of access, as suggested by Vennart (2012) and England (2015), what is gained may only cancel out what the same service loses for IP holders. Ironically, in either case, Spotify represents a triumph for the logic of free sharing. Whether or not a Spotify user has migrated from legal access or infringing access, Spotify provides free access to most of its users, whether or not record companies make or lose money overall from its existence. To this extent, Spotify—and other legal streaming services—are both taming free sharing and manifesting its triumph. That free access is legal may be seen as ‘taming it’, if being ‘wild’ is understood to mean its being against the law. If by ‘wild’ is meant the capacity of users to gain access to content for free (without paying), this has not diminished. While audiences do ‘pay’ for free access by giving up time (to advertising) and privacy (in terms of having their preferences monitored and sold on), they keep their money. This has led to more spending on live performance (see later discussion), which benefits artists. Spotify has certainly not ‘tamed’ free access in the sense of reducing it. It has offered the possibility of diminishing the threat to record companies of free access. However, even this is only a tentative possibility, as ‘fishing in the same pond’ may in fact still mean that Spotify’s (and other streaming service providers’) increased revenues are only bought at the expense of losses from other sales. As Spotify (2014) itself points out, its earnings growth since 2008 represents an increasing share of an overall sales volume in recorded music that has failed to recover after massive falls since 1999. Spotify has not revived overall sales. It may have limited potentially even greater falls, but it may simply have redirected existing customers’ money or even diminished their future spending. The combination of change, volatility, geographical diversity, limited data, the invisibility of much illicit behaviour and the impossibility of comparison with counter-factual scenarios (where Spotify did not exist but where all other things remained the same) make it impossible fully to verify or refute claims that Spotify is either propping up or further weakening the recording industry’s ability to sell recorded music.

4.6 WHO PAYS AND WHO GETS PAID?

However, whether or not Spotify is sustaining or further supressing recorded music sales is not the most important issue in any case. A problem routinely pointed out about Spotify concerns the rate of payment made to

artists in relation to the number of times their work is streamed by service users. Spotify pays around 70% of its subscriber and advertiser revenues to rights holders. Its 75 million users are streaming tens of billions of ‘plays’ per year. Gross revenues reached over US \$1 billion in 2014, and royalties rose to \$500 million in 2013 and to \$1 billion in 2014 (Spotify 2014). With so many individual streams, the rate paid to rights holders per stream (on average) is between \$0.006 and \$0.0084. Spotify pays different rates in different jurisdictions and depending on whether a stream was made by a premium or free-access subscriber. While these numbers are very small, when multiplied by thousands or even millions of streams in any particular year the total amounted to—as suggested—\$1 billion in 2014.

Yet artists have routinely complained that tens of thousands and even millions of streams of their tracks have still left them receiving payments that are a fraction of what even such tiny amounts per stream would suggest they should be receiving when the per-stream values are multiplied by the number of streams accessed (David Byrne 2013; Thom Yorke in Dredge 2013; and Taylor Swift in Linshi 2014). This gap is not hard to explain, however, even if the explanation cannot serve as any kind of justification. Spotify pays 70% of all the revenues it receives to ‘rights holders’, but rights holders are rarely ever the artists themselves and are in almost all cases the artists’ record companies. The record company then treats the revenue as though it were from the sale of records under the same contractual conditions as are applied to physical recordings sold. The conditions of such contracts will usually assign to the artist a royalty of between 5 and 15% of net sales, and from these royalties will be deducted all ‘recoupable’ costs involved in the production of the artist’s work (including studio time, producer costs, management and legal fees, promotional videos and other expenses; see Hull 2004). As the greater part of the record company’s costs are offset against a very small percentage of the work’s net sales value (David 2010), most recording artists find their royalty revenues simply swallowed up by recoupable costs, leaving them in debt to their record companies. The advance they received—which was itself almost wholly ‘spent’ by the record company on the expenses noted (though much of this ‘spend’ is ‘in-house’ and so its calculation and scale are open to question)—is rarely ever paid off, creating a form of debt bondage.

To the extent that Spotify pays record companies most of its earnings, the issue of why so little of this goes to artists is only a repetition of what happens when a customer pays for a CD in a shop and how little of that payment goes back to the artist. This is usually *none at all*, as the shop

takes its share and the record company receives the rest. From this a royalty is calculated, but out of this is deducted the cost of the expenses invested in the artist and their work. Record companies claim that it is necessary to keep most earnings and to recoup their costs from the artist's slender royalties share because labels have to 'subsidise' all the artists who fail to recoup. However, this failure is primarily because their royalties percentage is so low and recoupable expenses set against these royalties are so high. As such, this is a vicious circle leaving most recording artists in debt even when record companies make profits, and even further in debt when labels do not make a profit from their work. Spotify's payment system simply replicates existing arrangements, as it hands revenues over to rights holders and not to artists themselves. Spotify is not 'the problem' as such, but neither is it any kind of solution to 'the problem'—which is that almost all recording artists end up in debt to their record companies due to the contractual conditions of exchanging their IP for a royalty while also accepting to pay the cost of their work's production and promotion from that royalty (Albini 1994; Love 2000).

To the extent that artists do not get paid (very much at least) via Spotify, it is no different from either infringing free sharing services or the traditional record company model of distribution. To the extent that Napster and other copyright-infringing services reduced the opportunity costs for fans whose payment for recordings previously reduced revenues available for attending live concerts, the rise of free sharing caused an increase in ticket prices and ticket volumes sold. Prior to Napster, a fan could not buy a CD and still have the money they would just have spent, then to spend it on going to see that artist live. Alan Krueger (2004, and with Connolly 2006) tracked ticket prices and volume of tickets sold in the decades up to and after the arrival of free sharing software. The advent of CD burners for the domestic market did see a slight rise in money spent on live concerts from the mid-1990s. The beginning of file sharing from 1999 saw a collapse in the price and volume of CDs sold in direct relation to the increase in concert ticket prices and the volume of their sales. With free access retaining the function of publicity for an artist, reduced spend on CDs allowed fans to pay more and go to more live concerts. As artists receive payment for live performance rather than the promise of royalties that are almost entirely consumed by labels in the production of recorded works, artists are better off performing live than they are selling records. As the decline of the latter increased, the former artists benefited from the decline in record sales.

If Spotify users are ‘being poached’ from the pool of those who were previously paying for recorded music, what is a problem for the recording industry would in fact be a good thing for artists, if this means that these ‘migrants’ are now paying less for recordings than they were before. With most Spotify users not paying to use the service, such a migration would leave more listeners with more money to pay for live concert tickets, for which artists actually get paid. Ironically, if Spotify were to ‘tame’ the wild frontier of free sharing—as it claims is its business plan—by moving users of ‘pirate’ services over to being paying, premium subscription service users, this increase in payment for recorded content would increase opportunity costs. Money spent on Spotify would not then be free to pay for concert tickets (and hence real income for artists).

4.7 PARALLEL ECONOMIES OF FREE AND PAID ACCESS

A parallel presents itself in relation to radio in the first half of the twentieth century. At first radio stations sought to play records without paying performers, rather as infringing music sharing services do today. In time, regulation was introduced and radio stations were required to pay rights holders for the right to broadcast content. This cost was recouped by commercial radio stations through advertising, rather as is the case with Spotify today. One thing that did not happen was the development of subscription-based radio stations, in large part because broadcasts could not be effectively encrypted (Kittler 1997). There was no attempt to make them so, in contrast to today’s digital services, which have experimented with all manner of encryption—though with very little success (David 2013).

4.8 THE COUNTERFACTUAL CASE OF DIGITAL SPORTS BROADCASTING

In the music industry different labels release music over which they retain monopoly control, but which then competes for sales with the work released under monopoly control by other commercial actors. In sport, it is often leagues that control rights to distribute recordings of live broadcasts, not individual clubs (though in some countries individual clubs do retain some such rights, see Millward 2011). It was in relation to such league-controlled rights that new digital broadcasters began to negotiate

exclusive league-wide coverage deals from the early 1990s. What had been largely broadcast via free-to-air terrestrial services (funded by the state or by national advertising) migrated to pay-to-view services that required subscription payment to access content.

As peer-to-peer and then torrent services emerged in music-sharing communities to evade legal attacks, so in sport live streaming services became an evasion strategy; in contrast to music, where streaming has been used to create legal services. Globally distributed uploaders of infringing streams cannot be easily prosecuted, and viewers only view content and so cannot be prosecuted for making a copy. Simply watching a stream is not making a copy of the content. Live streaming has emerged as a significant alternative to pay-to-view digital sports broadcasting (Birmingham and David 2011; Kirton and David 2013). The first digital revolution in sports broadcasting (from the 1990s to the late 2000s) involved the buying up of monopoly broadcasting rights at higher prices than were being paid by national terrestrial (analogue) broadcasters, and then selling access rights globally to recoup the additional costs (Millward 2011). Terrestrial (analogue) television live sports broadcasting was (like radio sports commentary still is) ‘free to air’, with no scope to charge users directly for access. Funding for services came from either advertising or state funding (itself recouped either by taxation or a general licence fee). The first digital revolution took sports broadcasting from this ‘free-to-air’ access model to a paywall-protected subscriber or pay-per-view business model. The second digital revolution in sports broadcasting occurred only when broadband speeds allowed re-routing of such live broadcasting for free via live-streaming channels on the Internet (David et al. 2015).

While sports broadcasters continue attempts to uphold monopoly control over content and therefore to prohibit ‘live-streaming’ channels (largely without success; David and Millward 2012), the music industry has accepted free-to-access streaming services—such as Spotify and Beats—and sought to recoup revenues from such services in terms of advertising revenues being primarily paid over to record companies in return for the legal right to stream content to users. In part this parallels free-to-air television and radio (in the pre-digital era and still to an extent today).

Whereas in music the second digital revolution challenged a purchase model that the first digital revolution in music (the rise of the CD) had simply escalated (vinyl records and tape cassettes were sold, but CDs were simply sold for even more), in sports television the second digital revolution challenged a purchase model that was in large part only the product

of the first digital revolution itself. While live sport was traditionally free to watch on terrestrial television, the first digital revolution shut down such free access. Although recorded music was ‘free’ to listen to on the radio, listening to what you wanted, when you wanted it, required purchase. In both cases the second digital revolution challenges the pay-to-access model.

As free sharing software was challenging monopoly control in the music industry from 1999, digital sports television was effecting a pay-to-view model that closed down free-to-air access (from 1992 onwards). While music downloading was possible with the compression levels and the Internet bandwidth available in 1999, it was not possible to watch a live sporting event with any clarity using domestic Internet services at that time, and this did not become possible for another 10 years. In music, the rise of free alternatives forced the hand of IP holders to deal with the likes of iTunes and Spotify, but only after 17 years of highly profitable digital monopoly control (from 1982 to 1999). In sports broadcasting the lack of viable Internet-based alternatives, again for the first 17 years (from 1992 to 2009), enabled the creation of profitable pay-to-view television services, as monopoly control could be maintained. However, since 2009, while first movers maintain their subscriber base, newer entrants have struggled when squeezed between established monopoly providers (like Sky and Fox) and new free (copyright-infringing) alternatives (David et al. 2017). Although streaming is viewed as ‘the problem’ by commercial sports broadcasters, it is perceived as a potential solution by the music industry.

4.9 CONCLUSION

In 2008 the BPI (formerly the British Phonographic Industry) released a booklet claiming that unless file sharing was prohibited, its legacy would be a silent world without music. This doomsday scenario has proven entirely false. The legacy of Napster and subsequent copyright-infringing free sharing services over the Internet has been to create a culture that expects free access to recorded music, even while at the same time maintaining an economy where musicians are better paid than before. This is due to a particular set of parallel economies of music. Although copyright-infringing free-access options continue to exist despite all legal and technical attempts to prohibit them, a new generation of copyright-compliant download and streaming services has risen up alongside them.

The counter-factual example of digital sports broadcasting (in its early years prior to today's faster broadband Internet-afforded live-streaming alternatives) suggests that, in the absence of a free sharing alternative, the digital music field might have developed in the direction of a pay-to-view 'firewall' model. Napster even offered such an arrangement at its 2001 trial, but record companies rejected this. The subsequent free sharing alternatives in the musical field meant that such 'closure' never happened. Attempts today to create such 'walled gardens' meet with only limited uptake—and even this appears largely to be fishing from existing revenue streams. Free access remains and is taken as the default option by many people, such that even most of those who use legal streaming services are not prepared to pay for such access. At the same time, while radically diminished, a market for selling recorded music continues to exist even in the absence of effective legal and technical monopoly control. One last-remaining legacy of the free sharing software movement has therefore been not to destroy the recording industry, but rather to destroy the myth that IP monopolies are a necessary condition for a viable set of creative industries.

Yet the most profound legacy of the copyright-infringing free sharing of music online has been in reinforcing the significance of live performance as a means for musicians to get paid. Since the established recording industry contract meant that almost all recording artists ended up in debt to their record companies rather than actually getting paid, the fact that neither unlawful nor legal online services reward artists in any significant way does not change anything, at least in the sense of direct payment. What does change when access is free is the decline in opportunity costs, such that what was once paid to record companies is now paid for live concert tickets. To the extent that earnings paid to record companies, whether from record shops or streaming services like Spotify, rarely filter down to artists, the shift from paying for records to paying for concert tickets—which do see direct payment to artists (even if these payments are themselves far from ideal, transparent or always equitable)—the legacy of free sharing is better rewards for musicians.

BIBLIOGRAPHY

- Albini, S. (1994). The problem with music. *Maximum Rock and Roll*, 133. Retrieved September 12, 2008, from <http://www.arancidamoeba.com/mrr/problemwithmusic.html>

- Birmingham, J., & David, M. (2011). Live-streaming: Will football fans continue to be more law abiding than music fans? *Sport in Society*, 14(1), 69–80.
- Brown, I. (2015). Copyright technologies and clashing rights. In M. David & D. Halbert (Eds.), *The Sage handbook of intellectual property* (pp. 567–585). London, UK and Los Angeles, CA: Sage.
- Byrne, D. (2013, October 11). The Internet will suck all creative content out of the world. *The Guardian*. Retrieved August 15, 2015, from <http://www.theguardian.com/music/2013/oct/11/david-byrne-Internet-content-world>
- Castells, M. (2009). *Communication power*. Oxford: Oxford University Press.
- David, M. (2010). *Peer to peer and the music industry: The criminalization of sharing*. London: Sage.
- David, M. (2013). Cultural, legal, technical and economic perspectives on copyright online: The case of the music industry. In W. H. Dutton (Ed.), *The Oxford handbook of Internet studies* (pp. 464–485). Oxford: Oxford University Press.
- David, M., & Halbert, D. (2015). *Owning the world of ideas*. London: Sage.
- David, M., & Kirkhope, J. (2004). New digital technologies: Privacy/property, globalization and law. *Perspectives on Global Development and Technology*, 3(4), 437–449.
- David, M., Kirton, A., & Millward, P. (2015). Sports television broadcasting and the challenge of live-streaming. In M. David & D. Halbert (Eds.), *The Sage handbook of intellectual property* (pp. 435–450). London: Sage.
- David, M., Kirton, A. & Peter, M. (2017). Castells, ‘Murdochization’, economic counterpower and livestreaming. *Convergence: The International Journal of Research into New Media Technologies*, 23(1–2), published online before print December 9th 2015. DOI: [10.1177/1354856515619247](https://doi.org/10.1177/1354856515619247).
- David, M., & Millward, P. (2012). Football’s coming home?: Digital reterritorialization, contradictions in the transnational coverage of sport and the sociology of alternative football broadcasts. *British Journal of Sociology*, 63(2), 349–369.
- Dredge, S. (2013, October 7). Thom Yorke calls Spotify ‘the last desperate fart of a dying corpse’. *The Guardian*. Retrieved August 15, 2015, from <http://www.theguardian.com/technology/2013/oct/07/spotify-thom-yorke-dying-corpse>
- England, L. (2015). Apple has a playbook for killing free music, and it was written by Steve Jobs. *Business Insider UK*. Retrieved August 16, 2015, from <http://uk.businessinsider.com/how-steve-jobs-killed-free-music-2015-5>
- Habermas, J. (1989 [1962]). *The structural transformation of the public sphere* (Cambridge: Polity).
- Hull, G. (2004). *The recording industry*. London: Routledge.
- Ingham, T. (2013, July 21). Is Spotify bad for music? *The Observer: The New Review*, p. 4.

- iSkysoft. (2015). Top 7 Spotify alternative for streaming music. Retrieved March 15, 2016, from <https://www.iskysoft.com/audio-recorder-mac/spotify-alternative.html>
- Kirton, A. (2015). Music, technology and copyright: The makings and shakings of a global industry. In M. David & D. Halbert (Eds.), *The Sage handbook of intellectual property* (pp. 586–606). London, UK and Los Angeles, CA: Sage.
- Kirton, A., & David, M. (2013). The challenge of unauthorised online streaming to the English Premier League and television broadcasters. In B. Huchins & D. Rowe (Eds.), *Digital media sport: Technology, power and identity in the network society* (pp. 81–96). London: Routledge.
- Kittler, F. (1997). *Literature, media, information systems: Critical voices in art, theory & culture*. London: Routledge.
- Krueger, A. B. (2004, April 12). The economics of real superstars: The market for rock concerts in the material world. Lunchtime speech. Retrieved October 1, 2008, from www.irs.princeton.edu
- Krueger, A. B., & Connolly, M. (2006). Rockonomics: The economics of popular music. In V. A. Ginsberg & D. Throsby (Eds.), *Handbook of the economics of art and culture* (pp. 667–720). Amsterdam: North-Holland.
- Linshi, J. (2014, November 3). Here's why Taylor Swift pulled her music from Spotify. *TIME Magazine*. Retrieved August 15, 2015, from <http://time.com/3554468/why-taylor-swift-spotify/>
- Love, C. (2000). *The love manifesto*. Retrieved August 16, 2015, from http://www.reznor.com/commentary/loves_manifesto1.html
- Marx, K. (1995). *Capital: An abridged version*. Oxford: Oxford Paperbacks.
- Millward, P. (2011). *The global football league: Transnational networks, social movements and sport in the new media age*. London: Palgrave.
- Sandall, R. (2007, August). Off the record. *Prospect Magazine*, 137. Retrieved August 16, 2015, from <http://www.prospectmagazine.co.uk/features/offtherecord>
- Spotify. (2014). How is Spotify contributing to the music business? Retrieved August 15, 2015, from <http://www.spotifyartists.com/spotify-explained/>
- Spotify. (2015). 20 million reasons to say thanks. Retrieved June 10, 2015, from <https://news.spotify.com/uk/2015/06/10/20-million-reasons-to-say-thanks/>
- Vennart, M. (2012). And now to British theatre. Retrieved from Screamingsilence.org
- Wall, D. (2015). Copyright trolling and the policing of intellectual property in the shadow of law. In M. David & D. Halbert (Eds.), *The Sage handbook of intellectual property* (pp. 607–626). London: Sage.
- Wu, T. (2011). *The master switch: The rise and fall of information empires*. New York: Vintage.

Streaming Music in Japan: Corporate Cultures as Determinants of Listening Practice

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From the 1990s to the late 2000s, Japan was one of the world's leaders in the commercialisation of mobile Internet music and culture. Having first developed a vibrant youth culture on mobile networks through texting on pagers in the early 1990s, it became one of the first countries to launch a successful mobile Internet network with Japanese carrier NTT Docomo's i-mode in February 1999. Together with its competitors, i-mode cultivated a thriving and highly personalised mobile Internet culture, including games, avatars, wallpaper and, most of all, ringtones. Japan was one of the first countries to see a substantial market in ringtones—first in MIDI format, then sampled ringtones—a trend that North America and Europe followed two to three years later. The Japanese mobile Internet market was six times the size of that in the USA in 2005. At its height in 2008, the mobile Internet had accounted for over a fifth of total revenues for the Japanese record industry. However, between 2008 and 2014, total

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music revenues in Japan had fallen 34%, while global music revenues had fallen 19%, owing to a 71% growth in digital revenues. Digital revenues accounted for 46% of music revenues in the world in 2014, but only 15% in Japan (IFPI 2015; RIAJ 2016). While Japan's digital revenues halved, streaming music has boomed in the rest of the world, accounting for a third of industry revenues. The question with streaming music has long since moved from 'Is this a viable media?' or perhaps even 'What is the best way to generate playlists?' to 'How do we monetize?' On the other hand, the streaming music market in Japan has been a graveyard of failed initiatives, even when powerful record or media companies are behind them. What accounts for the slow growth of streaming music in Japan?

Given the early success of the Japanese ringtone and ringtone market, the answer seems to be less about national culture and far more about corporate strategies, coupled with pre-existing patterns of media usage. In particular:

- The conceptions of existing media, particularly radio, differ between the two countries, influencing listening habits.
- The legal and corporate structures of the music industry inhibited growth of streaming music in Japan but enabled it in the USA.

On the first point, media scholar David Black has noted that 'media gain and retain identity through acts of naming; names provide nodes around which technologies and patterns of usage can cluster' (2001, p. 280). Commenting on the labelling of streaming audio as 'online radio', he remarks, 'the very act of dubbing those [online audio] streams "radio" determines how much the two things will be perceived as having in common', thereby potentially limiting the scope and concept of the new medium (2001, p. 398). When streaming music services like Pandora, Last.fm and Slacker came onto the market, they called themselves 'online radio' and actively cultivated the link with the older medium. On its Form S-1 filing for its initial public offering in 2011, Pandora declared that it had 'pioneered a new form of radio'; Last.fm's name conjured up radio; and Slacker fashioned its user interface to look like radio and commissioned radio DJs to programme its channels. For these companies, linking their new services with the familiar name of 'radio' made perfect sense: over 90% of Americans listen to radio at least weekly, most often while commuting in their cars; this link to a part of everyday life made it easier for the companies to explain and sell the service. The name also set up

expectations as to what this new media would do. Americans listened to broadcast radio for two main purposes: as background while doing something else; and as a way to discover music. To align themselves with these purposes (and to facilitate targeted marketing), most American radio stations espouse a particular format or musical genre. While US radio has had its share of star DJs, radio stations recognise that listeners are often annoyed by interruptions in the music; many radio stations trumpet ‘*x* minutes of commercial-free music!’ or keep DJ chatter to a minimum. This expectation of the radio as background music, in a specific style, fits perfectly with services like Pandora. This service delivers music that sounds like an artist or song input by the user, as determined by a proprietary Music Genome database containing analyses of hundreds of musical characteristics. Listeners raved that Pandora introduced them to new music they were bound to like, allowing them to discover new artists and genres.

With Pandora having developed the market for streaming music, other services entered with different models of playlist construction, but similar concepts of online radio as background music—a point made clear in the marketing of Songza (later bought by Google Music). In words that recall Tia DeNora’s stories of music used to shape everyday life (2000), co-founder Elias Roman explained, ‘when people listen to music, they’re trying to enhance a mood or facilitate an activity; to help them relax, wake up, entertain friends, or drown out their co-worker while they’re trying to focus at the office’ (Mlot 2013). For Songza, music was ‘lifestyle enhancement’ rather than an aural product in itself. Nonetheless, both it and Pandora followed the concept of radio as playlist; their differences are in how those playlists were formed—by an algorithm, or by a curator. The establishment of the streaming music market through the radio model, where the playlist is automatically generated, allowed the growth of on-demand services, in which listeners directly choose the songs they want to hear. While older on-demand services like Rhapsody had stagnated from high subscription costs, Spotify was able to gain a foothold and grow by offering a free version, which gave full access to its songs on a computer but with relentless advertising and no access by mobile phone. It has been successful in converting some free users to paying subscribers, who numbered about 30 million of its 100 million users at the time of this writing. Spotify, Apple Music and Google Music all offer a combination of radio and on-demand services.

In contrast, AM/FM radio in Japan had neither the reach nor the dominant position as a source of music that it did in the USA. According to a 2015 survey by the Record Industry Association of Japan (RIAJ), only

36% of Japanese consumers listened to FM radio—far below the 90% rate in the USA. As most Japanese commute on subways and trains, where radio reception varies, they had already migrated to recorded music for commutes as far back as the Sony Walkman era. In addition, Japanese radio is not conceived of as a jukebox over the airwaves. Instead, it centres on banter between celebrity DJs who play a record now and then. It is more a simulation of the radio personalities visiting one's home than a source of background music. Its listeners include people seeking to escape loneliness, like housewives, the elderly, taxi drivers or teenagers fantasising about city life. For example, the noise musician Ōtomo Yoshihide said that as a teenager in Fukushima, he listened to late-night radio for the banter and music that suggested the sophistication of Tokyo, for which he yearned (Ōtomo et al. 2011). Furthermore, radio stations tend not to concentrate on one musical genre but play a hodgepodge of programmes, including variety shows, news programmes and the like, lasting as little as 30 minutes; within music offerings, radio stations had several short programmes of different genres (Manabe 2008, pp. 83–86). A listener could not simply turn on a radio station and expect a particular musical genre to be playing; he or she needed to consult a schedule, typically published monthly, in the same way that a television viewer might consult *TV Guide*. Finally, Japan has historically nurtured a culture of close listening, rather than passive listening; it was not so long ago that music-themed cafés, or *kissaten*, dotted the cities, in which customers did not talk but listened at high volume to music of a particular genre, as curated by the audiophile owner of the café. As Amano Akihiro, business development director of Warner Records in Japan, put it, ‘Americans and Japanese don’t listen to music in the same way. Americans spend more time in cars and listen to the radio when they drive. But in Japan, radio’s not as central as it is in the US ... People in Japan don’t have as much of a history of listening to music in a passive manner’ (interview with the author, Tokyo, 4 January 2010).

With lower rates of usage and the expectation of DJ chatter, it is perhaps not surprising that an earlier effort at creating a Japanese online radio service like Mixi Radio was unsuccessful, even though it was backed by Warner Music and Mixi, Japan’s largest social network at the time. Executives attributed its failure to the fact that it was not ‘interactive enough’ and was therefore ‘lonely and boring’. However, a second reason for this failure was a lack of content from the music industry.

One aspect that had helped Pandora to grow was that it held a federal statutory licence—an exception to copyright that allowed for works to be

broadcast without explicit permission from the copyright holder. It was therefore technically free to stream any music within the USA, but was obligated to pay performance and publishing royalties. In contrast, Japan has no such statutory licence, obligating any streaming music operator to negotiate with the copyright holders. In Japan, broadcasters, including terrestrial radio stations, pay a fixed fee to JASRAC, the Japanese entity for copyright clearance, to cover copyright fees for the composer, lyricist and publisher. On the other hand, Internet radio is classified legally as 'telecommunications' rather than 'broadcasting', so that copyright fees are determined by the number of accessed streams, as in the USA. To play commercial recordings over the Internet, additional rights needed to be cleared and royalties paid to the rights holder of the recording, such as the record company and/or the artist management company. Often there are separate negotiations for transmission over computer networks versus mobile-phone networks, the latter being typically more expensive.

For an online music service in Japan to be successful, it must procure Japanese content: in 2015, Japanese product comprised 87% of music sales in Japan, and that figure had grown from 74% in 2006. Yet Japanese companies have long tended to withhold content from online distribution. In ringtunes, several record companies initially restricted distribution to only a handful of portals; Sony Music only supplied Label Mobile, a joint venture among several record companies. To secure product, portals like MTI spent billions of yen on television advertisements that featured record companies' artists. In the 2000s, a consortium of record companies headed by Sony ran an online retail site called Mora, which charged ¥400 (about US \$3.50) to download a single track. This price was unreasonable, considering that one could easily rent the entire album for ¥280 from a CD rental shop, of which there were 3,000 throughout the country at that time. Only when iTunes entered the market at a price of ¥150–200 a song (\$1.25–1.67) in August 2005 did Japanese sites lower their prices, although they remained sceptical. They believed these prices to be too low, considering the costs of developing and promoting an artist, and they continued to push CD albums, which, at a fixed retail price of about ¥3,000 (\$26), formed the core of their marketing programmes. Record companies also handed iTunes its inventory quite slowly, even though iTunes quickly became the top download site in Japan. Sony Music Entertainment Japan, the largest local record company, withheld its product from iTunes in favour of Mora until November 2012, over seven years after the launch. In its initial stages, some record companies did not

make the hottest hits available on iTunes. Even today, several hitmakers like the boy-idol agency Johnny's categorically refuse to make any product available on the Internet. Back-catalogue offerings have also tended to be incomplete. As a music researcher, I have consistently found it more fruitful to search for Japanese back catalogue in a well-stocked Tsutaya rental shop than on any online source.

This tendency to withhold product has made Japan a graveyard of online music initiatives. If Japanese record companies were sceptical of the iTunes pay-per-download model, they were even more doubtful about subscription-based services. The first large-scale service of this kind in Japan was Napster Japan, a joint venture between Napster and Tower Records Japan that began operating in October 2006, offering unlimited access to its online library for ¥1,280 a month (\$11.13). Record executives thought that a streaming unit was analogous to a sale rather than a rental, leading them to see subscription services as cannibalising CD sales; one executive quipped, 'If you charge ¥1,000 for all-you-can-eat listening, then you would go into the red if consumers listened to more than ¥1,000 worth of music.' Some record companies, like Avex, withheld product, while others, like Warner Japan, withheld major titles and new releases. As a result, Napster Japan had a large catalogue of Western music and some Japanese indie artists, but not popular Japanese artists. The service closed in May 2010.

Music companies were also sceptical about content services based on advertising models. Mixi Radio was one Japanese offering that was similar to the personalised online radio format of Pandora or Last.fm. Started in July 2008, this service, which was backed by Warner Records Japan, was open to users of Mixi, which at the time numbered 15 million. Mixi closed the service a year and a half later, with only between 100,000 and 200,000 members of the free service and a negligible number of premium members. Although all the major labels other than Avex had participated—including Sony Music Entertainment, EMI, Pony Canyon, Universal and Warner—record companies excluded current hits or long-time bestsellers from the service, while some artists refused to make their music available on the web at large. My own experience with the service was that it played music from relatively less-known artists. In addition, Mixi said that the radio service was not in line with the ethos of the site—to foster communication among its users:

Applications on Mixi tend to be most successful when they reinforce the connections between people. If you are streaming music from your PC in Japan, you are probably listening to it by yourself. It wasn't interactive

enough; there wasn't the communication of, say, participating in an activity with your friends. (Tokuda Masashi, interview with the author, Tokyo, 6 January 2010)

From mid-2012 to 2013, as record companies sought to loosen the stranglehold of idol-pop on the Japanese music market, several on-demand streaming services that were accessible on smartphones were launched in Japan. In July 2012, Sony opened Music Unlimited. In March 2013, Recochoku, a joint venture among the major record companies and the leading player in the mastertone market, launched Recochoku Best; and DeNA, a mobile games and e-commerce company, launched Groovy. In June 2013, Japanese carrier KDDI relaunched its existing on-demand service as KKBox, having amassed 10 million users in Taiwan, Hong Kong, Singapore and Malaysia. Most of the major Japanese labels signed up with Groovy, Recochoku Best and KKBox at launch. However, the catalogue they provided seemed spotty. In August 2013, the top 10 chart on KKBox was filled with hits from several months to several years before; in contrast, the top 10 list on Spotify USA strongly resembled the Billboard list. Such a delayed-release approach would be similar to the way Japanese record companies dealt with CD rental stores, whereby they withheld new releases for a period. While some commentators on Twitter lauded the accessibility to old J-pop on Recochoku, most expressed frustration with all the services due to the unavailability of certain songs or artists, particularly since many of these songs were accessible on YouTube for free. Meanwhile, Spotify and Pandora had been looking to launch in Japan for years, but had not done so due to rights negotiations.

In 2015, Apple Music and Google Play Music launched their services in Japan, offering both on-demand and radio services for ¥980 a month. In advance of these launches, two local services were established: Line Music, a joint venture between Line Corp., a messaging app with 215 million monthly users, and Sony Music Entertainment Japan; and AWA, a joint venture between Cyberagent, a web-advertising firm that manages Ameba (one of Japan's largest blogging sites), and Avex, with a minority investment from Universal Music. The two ventures offer both on-demand and radio services, with premium and standard plans: LINE offers unlimited access for around ¥1,000 with the lower tier, at ¥500, capped at 20 hours a month (¥300 for students); AWA offers a premium plan of unlimited on-demand access for ¥960 a month, with a three-month free trial period, a standard plan of radio service only for ¥360 a month, and a free service of online radio limited to 60 minutes a month. Both offer interactivity, with Line Music providing integration with the messaging service and AWA touting its user-generated playlists alongside its celebrity ones. Both services, launched in June and May 2015

respectively, have been successful in terms of app downloads: the LINE Music app had been downloaded 10 million times in its first nine months, while AWA had been downloaded more than 7 million times and streamed 2.2 billion songs in the same period. Conversion to paying customers seems more of a challenge: based on industry-wide streaming revenues for January–March 2016 of 4.3 billion yen, subscribers appear to have numbered 1.5–1.8 million, far less than Spotify’s 30 million and Apple’s 13 million worldwide around that time. Apple’s brand name and existing contracts with record companies through iTunes was helping it to grow faster than the competition; its share of the Japanese streaming market was estimated at 40%.

The historical issue of insufficient content may be persisting. Although AWA boasts a catalogue of 30 million songs, a common complaint on the iTunes app store is that there are ‘few artists or songs’ (@miyatami, 14 March 2016) and that the offerings are ‘mainly Western songs’ (@kanarisaikou, 14 March 2016). Indeed, as of June 2016, only 500,000 songs were by Japanese artists, mainly representing back catalogue. The complaints about LINE Music are even more brutal, with the service receiving only a 1.5-star average rating out of 584 ratings in its most current version as of 26 March 2016. The most typical comments were ‘too few songs, not enough variety of genres’ (@arieru 1117, @bekepeke, @E!, 11 March 2016), ‘too few artists—just major ones’ (@hamakane no hamaya, 11 March 2016), ‘no back catalogue’ (@tamago kakenai gohan, 11 March 2016), and ‘so many organ instrumental versions’ (ibid.). As one user said, ‘There were so few songs that I deleted the app—so disappointing. Instead of just having trending songs, I want songs that are popular but not at the top of the charts’ (@?????, 11 March 2016). According to AWA director Ono Tetsutarō, these complaints in part reflect a change in music discovery patterns: while most Japanese discovered new music through television, teenagers no longer do, so that the musical tastes of their generation are highly fragmented (interview, Tokyo, June 13, 2016). Hence, a streaming service must supply a smorgasbord of subgenres to seem complete.

Another reason for the slow takeup of streaming music in Japan is that smartphones took longer to catch on. In the USA, the inflection point in Pandora’s growth had been the rapid diffusion of smartphones. When smartphones first appeared in Japan, however, they were not seen as revolutionary or new: in the late 2000s, mobile phones in Japan were more advanced than those in the USA. At the time of the iPhone launch in Japan in mid-2008, the average Japanese handset offered most of the capabilities of the iPhone—web browsing, email, music playback, games and so on. Three years later in 2011, handsets in Japan had electronic wallets, but US iPhones did not. In addition, given the long history of

Internet-enabled flip phones in Japan, many Japanese had got used to performing simple tasks easily on a flip phone. Hence, the smartphone was not necessarily seen as a must-have device on release: in 2010, only 8% of Japanese mobile-phone users owned one, compared with 27% in the USA (ComScore 2011). Furthermore, carriers were initially less keen on smartphones, as they seemed less profitable: the walled garden of the flip phone provided a revenue stream from commissions on applications, which were usually paid subscriptions. On the other hand, the majority of smartphone apps are free and, until in-app purchases were developed, the revenue came from the initial download and was not recurring. While smartphone diffusion has since caught up to reach over 70% of the population in 2015, Japan was slower to adopt smartphones than other countries, which may also have delayed its growth in streaming music. Finally, Japan has lagged behind the U.S. in 4G and LTE diffusion, and as streaming music can often be dropped on 3G, the infrastructure may have discouraged uptake. As Japanese carriers reinvest in faster-speed technologies, diffusion of streaming music is expected to increase.

The 2015 RIAJ user survey suggested that demand for streaming services may remain subdued: only 10% of Japanese appear to listen to subscription services and only 18% listen to Internet radio (including simulcasts), versus over 50% who watch YouTube and other video sites. Although 65% of consumers knew about subscription music services, only 13% were interested in using them. Similarly, 55% of consumers knew about online radio services, but only 12% were interested in using them. One possible bright spot was that nearly a quarter of consumers noted that a video or Internet streaming site introduced them to a song they subsequently bought, making these Internet sources the second most effective way of promoting music next to television. AWA's own study showed that 83% of users were listening to music for greater amounts of time, with the average user listening to about 90 artists per month—an interesting point for a music industry looking to diversify its revenue base from idol-pop groups. Meanwhile, Avex's gross margins improved in 2015 because of greater back-catalogue sales through digital channels. Such findings might encourage Japanese-content companies to become more open to streaming services, or at least provide them with more back catalogue. More importantly, the entry of major global players like Apple into the Japanese market has made the industry's turn to streaming seem inevitable, making Japanese record companies more open to providing content. On the other hand, despite the growth in LINE Music and AWA, the largest active user base in streaming media remains that of Radiko.jp, an app that transmits simulcasts of terrestrial radio stations, in all their chattiness.

In conclusion, let us revisit Black's (2001) contention that the naming of a medium defines its identity and affects its patterns of usage. When streaming audio was named 'online radio', it lent expectations that the new medium would have the programming characteristics of traditional radio broadcasts. This naming may have helped the acceptance of Pandora in the USA, but it may have hampered it in Japan, where radio has lower usage and different programming patterns. Furthermore, different legal and business structures constrained the growth of online radio in Japan. Such differences in pre-existing conceptions of media, corporate behaviour and lifestyle patterns mean that the acceptance of a mobile medium is *not* universal.

Sections of this chapter appeared previously in Manabe (2009) and (2014). All Japanese names are presented family name first.

BIBLIOGRAPHY

- Black, D. A. (2001). Internet radio: A case study in medium specificity. *Media, Culture, and Society*, 23, 397–408.
- ComScore. (2011, February 14). The 2010 mobile year in review. Retrieved from http://www.comscore.com/Insights/Presentations_and_White_papers/2011/2010_Mobile_Year_in_review
- DeNora, T. (2000). *Music in everyday life*. Cambridge: Cambridge University Press.
- IFPI. (2015). *Digital music report 2014*. Retrieved from <http://www.ifpi.org>
- Manabe, N. (2008). New technologies, industrial structure, and the consumption of music in Japan. *Asian Music*, 39(1), 81–107.
- Manabe, N. (2009). Going mobile: The mobile Internet, ringtones, and the music market in Japan. In G. Goggin & M. McLelland (Eds.), *Internationalizing Internet studies: Beyond anglophone paradigms*. New York: Routledge.
- Manabe, N. (2014). A tale of two countries: Online radio in the United States and Japan. In S. Gopinath & J. Stanyek (Eds.), *The Oxford handbook of mobile music studies*. Oxford: Oxford University Press.
- Mlot, S. (2013, February 12). Songza: It's not just music, it's lifestyle enhancement. *PCMag*. Retrieved from <http://www.pcmag.com/article2/0,2817,2413718,00.asp>.
- Ōtomo, Y., et al. (2011). *Kuronikuru FUKUSHIMA*. Tokyo: Seido-sha.
- RIAJ. (2016). *2015 nendo ongaku media user jittai chōsa*. Retrieved from <http://www.riaj.or.jp>

Making Sense of Acquiring Music in Mexico City

Víctor Ávila-Torres

In Mexico City access to music is not a problem. Anyone can buy a CD containing music anywhere, almost literally. On a regular subway route of 15 stations one may be able to buy 6 or 7 different CDs, filled with 200 songs in MP3 format. Sellers of this music are well equipped, with portable CD players and loudspeakers hidden in backpacks.¹ Once the doors of the train are closed, they press play and all the passengers are exposed to a mixture of loud music as a sample of the contents on offer.

Acquiring music is more than a problem of accessibility and payment; it is a socio-technical assemblage that is constantly redefined by humans and non-humans. In this process certain practices co-create specific ontological notions: about what the music is; what its value is; and what the role of the listener is. Some of those practices seem contradictory, particularly from an ethical and social viewpoint, and thus come to demand discursive strategies from the listener in search of coherence. This chapter is focused on Mexican consumers and piracy, showing the discursive strategies created by listeners to align the differences between those practices and the heterogeneous *actants* that make possible those assemblages.

The Mexican music market has a wide range of modes of access at the listener's disposition. While physical products are still bought, access to

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Internet and digital technologies is growing, opening space for diverse practices, legal and non-legal. Yet there also exists a sort of piracy that belongs to both worlds: the compilation CDs that are sold in the streets.

As I intend to show, those practices are not mutually exclusive: some listeners routinely jump from one to another every day as an active choice. These practices build the decision-making process of the listener, and each has an active role in making sense of the others. This chapter considers mainly physical piracy, legal and illegal downloading and the purchasing of physical albums; finally it points towards the constitution of a new kind of listener.

The conceptual language used relies on that of Latour's actor-network theory (2007b), but related to the sociology of mediations developed by Antoine Hennion (1993) from the sociology of culture and taste. This approach confers the same conceptual importance on the role of humans and non-humans in the constitution of a network of practices and tastes, and then explores how differences are constituted. The term *actant* refers to all the entities with an active role in the development of that ontological network. However, this theoretical frame is not the centre here; rather, it is used as a vocabulary or toolkit to make visible the mobilisations and networks involved in the acquisition of music.

The chapter has two main objectives. The first is to introduce the Mexican music market, analysing the problematic views generated by physical piracy, everyday economics and Internet access. By this I argue that socio-technical actants are playing a role in the ontological configuration of the technologies of access and music itself. Secondly, the chapter highlights the discursive strategies used by individuals to make sense of their practices, which uncover the process of simplifying and ordering their choices in relation to situational valuations of each mode of acquiring music. With this, I aim to set the analysis of the consumption of cultural goods in the practices of the user, specifically the decision-making process.

6.1 DATA COLLECTION

This chapter is partially based on research concerning digital music ontologies in Mexico City (Ávila Torres 2014). Data collected involved 18 in-depth interviews with Mexican consumers of digital music, all between 16 and 30 years of age. The main focus of the semi-structured interviews was to find the sense-making strategies of digital music consumption, the narratives and practices invoked. The sample of informants included all kinds

of listeners and people involved in the music industry, from musicians and record-label executives to digital consumers. Informants were gathered using a snowball method, aiming to prove the relations and separations declared by the informant themselves. The excerpts presented in this chapter are examples of the discursive process for producing coherence around users' practices, and the strategies used to integrate heterogeneous mediations in getting music.

6.2 MUSIC, TECHNOLOGY AND MUSICAL PRACTICES

The supposed dematerialisation of digital music has promoted the incorporation of new material devices that help the listener to create particular practices and confront specific experiences of consumption and acquisition. As Pablo Magaúdda (2011) suggests, to affirm that this dematerialisation univocally changes people's practices underestimates the insertion of those practices in specific socio-technical environments and the materialities mobilised to engage in musical consumption.

In Mexico there are multiple ways of accessing music, all of which commonly cohabit and share spaces. Any listener is attached to a unique way of getting music, much beyond the traditional dichotomy of legal and illegal. Leisure consumption is a complex practice, as Andersson (2010) shows, not easily divided into legitimate and illegitimate; these categories can be shared and part of the same person's engagement. Yet that does not mean that the contradictions of each practice are invisible to the listener. Moreover, insofar as the listener is fully conscious of the role of each practice in her context and the differences between them, she develops strategies to explain them to herself and make sense of them. This makes a case for using *multiplicity*, a concept developed by Law and Mol (Mol and Law 2004) to comprehend the heterogeneity of actants who take part in the constitution of a single object. Then, every configuration possible gives birth to ontological objects (Law 2002; Mol 2002) that are politically situated, and creates its own narrative of the world, but they are not different objects, just ways of enacting the same in practice. Also they are not fully separated: there are places in which they meet with the others to develop an ontological network, which is referred to as *fractality*. Hence, this is not a relativistic account, but a way to evidence the constitution of a multiple into a singular object and the political implications involved. Here, multiplicity is not coming from an outside view of a singular entity; it comes from the self-assessment of one's own possibilities. In other words,

the listener assesses her options, which could come from outside or from experience, and embodies certain practices that are divergent or contradictory to each other; therefore she builds some discursive strategies to make sense of them as a singular practice.

Scholars of the sociology of music and cultural consumption have given accounts of these actions and materialities, particularly Antoine Hennion, Tia DeNora and Michael Bull. Hennion (1993, 2001, 2010) takes the notion of actants from ANT and reinterprets it as ‘mediations’, to describe the material and non-material compositions of practices that build musical experience and taste. DeNora analyses the constitution of these experiences (Bergh and DeNora 2009; DeNora 1999; DeNora 2000), which allow the interpretation of music by the listener and the constitution of the listener herself. Within that frame, DeNora takes the concept of ‘affordances’ to include the aesthetic form as part of the analysis. A third view is proposed by Bull (2010), who considers the interaction between the world, the music, the listener and the technological mediations of music; this view privileges the mobilisations of the subject to make sense of her urban context with technological devices (Beer 2010). These views are carefully discussed elsewhere and from diverse points of view (Acord and DeNora 2008; Marshall 2011; Nowak 2014), but for my argument two points are particularly relevant: the notion that music should be understood as an assembled practice, taking the distance of the separation between the world of aesthetics and cultural sociology; and the exclusion of any essentialism that constrains the analysis and fatally determines the action of the subject in her creative practices.

All these arguments bring forward the issue of technology as an active agent of the musical experience. My focus here does not lie in consumption, but rather in the negotiation processes involved in acquisition and the notions deployed by each socio-technical arrangement. By this it becomes necessary to take into account how the listener establishes reflexive views of the possible configurations at hand. This is also necessary so as to consider the interactions of each practice and how the agents are ontologically prescribed in relation to the others. This allows me to speak of how the agency of each assemblage is distributed and situated (Latour 2007a) from the perspective that the listener assumes. By this I will show the diverse tensions and contradictions of each informant and the strategies developed to relieve those tensions. Each verbalisation explores the constitution of actors who are assembled from mechanisms of the most diverse origin (Prior 2013). That means that my attention is set to analyse

epistemic practices (Bueger 2015), understood as strategies to establish a common sense of divergent practices or ontological objects; again, as an active set of decisions.

6.3 UN-BLACKBOXING MEXICAN PIRACY

If you download or share, free, you are not paying but it's a personal choice. If you buy in the streets you are funding an industry and it's a crime, like it or not, it's in the law. Additionally, that money could be going to the Narco or a criminal activity. Torrents are less harmful. (Jorge, international record company employee)

As described at the beginning of this chapter, anyone can get a CD almost anywhere in Mexico City. As Jorge declares, this is illegal: they are selling pirated material. Also, they are using public infrastructure to do private business, something that city regulations prohibit, and they are contributing to noise pollution. Moreover, they are displaying, materially, one of Mexico's most taxing problems: corruption (for more about this point see Aguiar 2011).

Those sellers are not invisible; it is really easy to find a place to buy these kinds of CDs. Vendors are also on downtown streets or at any market within the city. Their promotion techniques are similar: high-volume sound and a blanket with their offerings. Some estimations state that nearly 70,000 people sell that merchandise as a form of making a living (Cross 2012).

Those CDs are a particular form of piracy that could be defined as 'curatorial interventions'. For 10 pesos,² you will get around 200 songs in the most diverse curations. Many of them are classified for the kind of music they contain: 'the newest of banda', 'hits of rancheras' or 'legends of classic rock'. Hence the notion of the album is not important, only a set of songs that are particularly famous. Others contain songs related by some arbitrary set of tags, like 'music for a Mexican party', 'romantic hits of 2014' or 'reggaetón mix'. The least common set available is the discography; here the notion of album is reinserted, for example 'Vicente Fernandez and Joan Sebastian history', 'Caifanes discography' or 'Complete Juan Gabriel'.

There is no intent to sell look-alike products; the CD has no print on the surface, the package is a cellophane envelope with an adhesive seal, the

sleeve is a chaotic paste of images with the name of the compilation in bold letters and colours with poor print quality. On the back is a list of songs in a tiny, almost unreadable typography.

The discourse of sellers sounds interesting; they use a speech like ‘get all the hits of Vicente Fernandez in MP3 for your cell phone, readable by any actual player’. With movies or series they guarantee that they are in a file format acceptable by any kind of smartphone.³ Therefore, the main feature that they are promoting is ‘transparency’: ease of access to anyone unfamiliar with the technological processes required.

These compilations deploy different notions of the album. The ‘discography set’ is the reinsertion of an industrial musical canon, multiplying its availability and asserting the traditional album as a mode of making sense of an artist’s career or the user’s digital collection, as noted by Straw (2009). The other two sets offer subjective ways to make coherence from the content and forecast the listener’s activity. The album has no inclusion here, but that does not mean that these are entirely free ways of aggregation; as Straw highlights (2012), they are deeply intervened in by other media, like radio charts or genre classifications. These CDs are not just objects, then, they have the listener’s position embodied in them, in where they are sold, in what they contain, in the accessibility proposed, in the price and in the anticipation of use.

Going back to Jorge, piracy is not bad just because of piracy itself, it is bad because it is uncomfortable, noisy, proliferating in the streets and possibly related to organised crime and narcotics; a topic that in the last 10 years has been a regular fear for Mexico. There are no references to any notion of quality, access or artists’ income. Thus the appeals of fear and crime are also a form of embodiment made only possible, at least in that way, in the Mexican context.

To develop this topic, Cross (2012) traced the paths of piracy in Tepito, a popular market in Mexico City considered the heart of illegal production in the country. He found that there is no evidence that this piracy is related to major crime networks, mainly because the production seems not to be controlled by anyone; instead, there are families who buy cheap equipment and all the members participate in the manufacturing process. This kind of organisation embodies a complex practice that makes the prosecution of this felony very difficult, perceived as unstoppable and reinforced by strong, efficient distribution that covers the entire country. Individual sellers, with no connection to the manufacturing group, are the distributors; some of them are possibly engaged in other felonies.

Real or not, the narrative that relates piracy to major crime is not reducing profits in this market. According to a report by the Intellectual Property Rights Committee of the American Chamber of Commerce (IPRC), 59% of the population has bought music or movies this way, far above the second major pirate market: footwear (2011).

From my view, it's not illegal to share or download, because you are not paying anyone, nobody earns from that. Illegal is going to the street market and pay someone 10 pesos for a CD and the money get nowhere, it's in their pockets. He bought the CD for 3 pesos. (Ramón)

In this case there is an ethical perspective, one that has to do with the fairness of the revenue for the creator. Here, the external representations of music such as a booklet or container are out of the discussion; just money and fairness. Therefore the assemblage of this ethical justification came from the notion of organised crime, behind the fairness of the monetary exchange.

Until now, the form of the album and the notion of quality have seemed to be unimportant, but there is also a material embodiment here: the existence of these CDs is made possible by the interaction of many actants, such as MP3 format, CD-R (recordable compact discs), cheap CD recorders, lack of surveillance in the markets and many more; indeed, those are all present and active when the notions of crime and fear are invoked.

In addition, there is also the technological alphabetisation, the knowledge required to operate technological systems, crucial for getting valuable music by these means. That idea, used previously by the seller, is now recalled by my informants to justify the acquisition of those products:

There is a point where some people do not understand anything about technology, so they won't learn how to download, to buy in iTunes or to use Spotify. For them the easy way is to buy the MP3 CD in the streets and put it in their DVD player. (Jorge)

Thus the existence of this piracy allows people to get easy access to music, consequently creating divergent justifications between those who are able to use digital tools and those who are not; creating separations and differences.

In short, the pirate CD is not a stable concept, it is set in motion by a diverse set of actants. In this case fear, crime and the problem of acces-

sibility all deploy different justifications. In sum, there is a heterogeneous oscillation (Law 2002) between the moral and the material, between those who create and those who consume, between the perception and the use, the user and the context.

6.4 THE HETEROGENEOUS KNOW-HOW OF DOWNLOADING

Each method of acquiring music enacts a way of making sense of the others. In the previous section there were some references to downloading or sharing, mainly via torrents. This activity is a major concern in public policies as in academic research. However, to consider it a practice of entirely free access is fallacious. The last survey about digital access from the National Institute of Information and Statistics (INEGI) showed that just 47.4 million Mexicans declare themselves users of the Internet, approximately 44% of the total population. That does not imply regular access for these users; just 10.8 million homes have private access, 34% of all the homes across the country. That gives us a perspective about how large a percentage of the population is not necessarily in contact with torrents or even the Internet. The pirate CDs are, however, part of this network, and there is no such thing as an ‘outside’ of the digitisation phenomenon.

Accessibility is still something to consider: once the option of physical piracy is abandoned, the listener is able to continue her decision-making process. Miguel says that he searches for rare music, mainly old recordings that he loves, such as Edith Piaf, Nat King Cole and Doris Day. For him this kind of music is difficult to find, particularly in the legal market, so he tried downloading:

I used to download music from Ares, but then I stopped because it allowed too many viruses into my computer, once my computer was left totally useless, broken. After that I have been always buying in iTunes. (Miguel)

All music is not available to everybody, therefore. Looking for a specific song, particularly one out of the mainstream charts, requires some expertise in the process involved, such as knowing the appropriate website or software. The same could be said about p2p (peer-to-peer) sharing systems like Napster or Ares. Furthermore, one must learn to avoid the potential risks of each system. The process of choosing a technology for music is also incorporated and constantly changed by practical experiences. In

this case the Internet became a possibility, but a turnaround occurs and the digital shop is the most feasible alternative. Yet that does not switch Miguel into a full-time buyer. When he is questioned further about his practices he admits:

Sometimes it is difficult to get a song, or I just don't have the money. So I search in YouTube and use special software that extracts the audio and download just an MP3. (Miguel)

Then there is a solution perceived as secure, and the acquisition is complemented by two new actants, YouTube and the software that downloads the audio file. There is also a justification regarding ethical concerns: the lack of money. The process has changed, not only influenced by ethical concerns or perceived dangers, but by the feasibility of access; downloading is not a problem of justice or fairness here as long as money is not involved and the songs searched for are old ones. The previous experience is privileged over moral statements, the decision to go with certain technologies is intertwined not only with taste, but with experiences and accessibility, in Hennion's terms (2007), all of them mediations of musical experience.

But piracy does not have all the music; sometimes you have to put in a little effort. (Ramón)

Here again the embedded notion of practical knowledge appears, but Ramón is appealing more to knowing exactly what file is going to be downloaded. This problem has more to do with expectations, not only about getting music, but getting the desired song in a specific version or at some standard of sound quality; a mastery of the search of music. Downloading becomes an active process, it must have work mobilised and an expectation to accomplish when the song is hunted, almost like a challenge. All the work involved enhances the quality of the experience, as much as the value that an album or a song acquires for the user. As stated before, following Magaúda (2011), one cannot overlook the ways in which the apparent loss of materiality means more than a loss of value, but the development of new notions of value that come from very different objects and practices.

According to Ramón, there were advantages of torrents—in sharing communities like The Pirate Bay some people leave comments about the quality of audio or the reliability of the file:

Sometimes in blogs or direct download sites you can download a Killers album and you get some kind of 'Kineys' or something. Some people expect that by mislabeling their bands they would gain some audience. That is something that you avoid with Torrents, there is a sense of community, assessing the file in the comments or, even more, asking for some specific difficult album. (Ramón)

Certain bands are trying to take advantage of p2p networks, but the community, not formally regulated, is in charge of filtering content and helping others. Therefore an unknown mass participates actively in Ramón's process, and in the way he assesses the use of torrents. He is appealing to the certainty of getting the desired song or album, avoiding those who try to cheat users. An ethical perspective is imposed, but not about payment or the legal framework, but rather about those who try to gain an advantage from the practices of others. In the previous section, the abuse came from those who take your money; here, it is from those who treacherously use the system. Morals about getting music are therefore mobile, unstable: they are always changing according to the network summoned by the listener at the moment of making a decision.

Each technology thus works as an active agent to assess the possibilities of the others. These are not free assemblages; their materialities and affordances are actively setting the range of practices that users develop. Musical acquisition is more than just a set of technologies, it is a multiplying set of practices that depend on the position taken by the listener. All those actants are working each time to build a discursive strategy that becomes a performance, an action, and each time the user's experiences and expectations change.

6.5 THE RIGHT PRACTICES OF MUSIC

The process of acquiring music is also related to what the listener expects to do with it: the promise or expectation of certain experiences. These conceptions are invoked in the form of 'correct' ways of listening, embodying representations of the recorded music or the creative process involved.

Martin recognises himself as a regular 'downloader' and, as a creator, he gives his music away for free, but:

Today, people seek to just download a song and skip all the other things that they do not know. It's good in some circumstances, but I think that

is something that devalues the music, the work, all the process of making a record. I think of the album as a full oeuvre. (Martin)

Again a reference to the physical album appears; the limits and possibilities of these containers promote a particular way of making and consuming music (Sterne 2012). Martin is talking not just as a listener, but also as a creator; he is moving himself from one point to another, transforming his valuation process. He assesses his own practice as ethical in regard to the respect shown to other creators, by listening to their work in its whole form. From this outlook, my interviewee qualifies those who merely download music, without paying for it, as 'hedonistic' and 'selfish' because they never 'do something for the music': they just look for the song they want at the moment they want. Therefore, the music demands work, effort, not in the sense of a set of operations, but time and appreciation in specific dispositions. Music, as a creation, has its own demands and requirements; it is not simply a passive object waiting to be heard.

Those musical demands are also entwined with the technological context and the options that the listener has at hand. Ramón admits that listening to full albums is his most beloved practice, but some time ago he had had enough of individual songs because downloading was a complex process:

When Napster started it was not so easy to download music. We had dial-up connection, sometimes to download a couple of songs meant waiting all night, sometimes with friends having a beer and sometimes I went to sleep so in the morning my songs were downloaded, if the connection did not fail. Then you also had to think very hard which song you wanted to download. (Ramón)

This quote shows new actants. The first is the unveiling of a new concept of accessibility, this one related to the operation of Napster, which made Ramón particularly selective when downloading, since it was not possible to be a 'hoarder'. Simultaneously, the popularisation of CD-Rs and CD recorders made the creation of mix CDs possible. The mixtape is recognisable as a predecessor to this, but nevertheless in this new curation practice the user needs no access to the physical material, and the labour is not in the recording process itself, but in the gathering of the appropriate songs in a technologically limited environment.

Jorge admits that his main consumption is digital, even though his favourite format is vinyl, but:

Those are for special occasions, you have to sit down and just listen to them, and you can't be doing anything else. Unfortunately it does not happen to me often, I think that the last time than I did that was 6 or 8 months ago. ... My main time for music is when I am at work or driving, always via my iPhone. (Jorge)

He still keeps buying some records every month; the pending listening queue is getting longer. He makes a distinction about how each format of musical container demands something specific: even when the music is the same, the materialisation of the consumption enacts different forms of required attention. In this case, the value emerges from the idealisation of the experience, a special set of practices like those described by Hennion (2010), but never accomplished, and an album is just a referent for value.

Understanding music as an accomplished oeuvre is still important for those who refuse to engage in the demand to listen to it in full; this time as a referent, a guide through other forms of musical experience. When Pascual arrived at our interview, he was wearing earbuds plugged into a mobile phone. He was listening to Hello Seahorse!, a Mexican electro-pop band that I know well. I asked what song he was listening to:

I don't know the name of the song, it's from the new album, *Arunima*, but I don't have the full album. I have only listened to the album in full one or two times, then I chose the songs that I like and those are the songs that I uploaded to my phone or iPod. I don't see any sense in having an album if you like just a couple of songs. (Pascual)

He sees in the album a temporal referent in his decision-making process. The field of new possibilities is shown once he dismisses the former demands of music. He uses it to link and arrange other musical practices such as going to a concert:

If I liked more than a half of the last album then I make the effort to go to the concert, I know that most of the concerts are based upon the last album of a band. (Pascual)

In any case, he admits that he owns a little collection of albums from Mexican bands, including Hello Seahorse!, but just because they are auto-graphed. The process of returning something to music is not accomplished by playing the albums in full, but by assigning a new value to them. This value is not in the content or the material referents to it, such as a book-

let or art, but in the addition that makes it unique for him. As with the work to gather songs exemplified before, the value is materialised in other places, in this case by the differentiation process of getting an autograph, making it unique.

However, the physical album still gives something back to listeners: it changes the way they feel about their relation to music. The collection of music is a symbolic differentiator that distinguishes ‘real music fans’ from just ‘listeners’. The album is the format that, in the words of my informants, requires the greatest mobilisation of actants from diverse origins, as Eric explains:

The record shops have always limited me, it's not just about money, but about the places where I used to travel and live in the city, I have no record store nearby, it's a long journey for me. ... Usually I can't find my kind of music in any store, some very specialized jazz albums never make it to Mexico. You can just order it from Internet, but the price is many times higher. (Eric)

When he finally gets the desired album he just turns it into MP3 and uploads it to his iPod or mobile. The album in its physical form is never played; it is transformed into a collectable and a referent to the oeuvre of the band or singer. Meanwhile, the listener is rendered a real fan or a fake one. Here, paying for music is a mode to ‘make something for music’, but it operates as a way of converting the listener himself.

As shown in this section, the music acts as an agent that requires something in a circular relation between the listener and the music itself. It is a co-construction in continuous motion, a set of mediators transforming each other continually. Material records are always permeating practices that are not always directly related to them, and they are also changed by the participation of actants that seem far away from the music itself. The process of making sense of the practices of the musical experience comprises present, past and future, strategically settled and ordered by the consumer.

6.6 STRATEGIES OF LOVING MUSIC

The practices narrated here are not mutually exclusive; they overlap mainly by discursive strategies that relieve the tensions contained in each one. Moreover, they can act as a continuum: ordered as sets of practices that

help the listener make sense of her own consumption and love for music. So the listener is able to seam together the moral disparities and her own taste.

A common practice for my interviewees is to assemble a process of building taste that starts after the first exposure to a certain song from any medium:

I search the song in YouTube, then I try to listen the album. If I really enjoyed the album I download it from the Internet and again, if I notice that has become particularly important for me, I buy it. (Ramón)

This statement sheds some light on the constitution of taste by technological means, ordered to deploy continuity. The legal and illegal are blurred as part of the practice; the important feature is the route guided by the attachment to a particular song. Ramón admits that the process can change depending on the artist, because sometimes he has bought things just for the love of a band and his status as a 'fan'. Buying is merely invoked as a final decision, an action that establishes a new deal between the music and the listener:

When I like something very much, if it's affordable for me, I go and pay for the album, I never listen to it but at least I have done something. (Eric)

The reference to the demands of music appears again, narrated here as an action, the distinction between the active and the passive. The music can see a demand accomplished, the effort from the listening party, but always built through the differentiated practices, situating the listener politically as someone actively engaged with taste.

Yet consuming music in the techno-social reality is not necessarily an active practice. It can be done without trying to be a real music lover, or to create a distinction from others and thus a form of listener; the availability of music affords the deployment of new attachments and creates new listeners.

Nowadays, you can access music from everywhere, you don't have to pay and that is right for me. I think that in iTunes music is expensive, and I don't know how to download illegally, so my boyfriend is the one who obtains music for me. In other places like the office it is easier to listen to channels like YouTube. (Diana)

As a good summary of this chapter's journey, Diana will not buy because it is expensive, will not buy pirated because it is bad, and nor will she download because she does not know how to. Still music is everywhere, without any effort. For Diana the proliferation of places for listening to music is a good phenomenon: she is sure that in the long term it will be good for the creators and artists, even if she cannot tell how. At the beginning of our conversation she declared herself not a fan, but during the process of the interview she noticed that music:

Is a need for me, I cannot imagine being without music. Just a need, just like going to pee. (Diana)

6.7 CONCLUSION

The practice of getting music is a multiple object but also a specific one. It changes in accordance with the actants invoked. They are also fractal, with points of interchange and encounter. There is no unique way of assessing them; the objective seems the same but with different versions. In each way, the user accomplishes the same objective: to have music at her disposition.

Digital music, in cases like Mexico, is not only a problem of cost or legal tension, but also the embodiment of different notions and networks of meaning that are always around the listener. The listener makes active choices between similarities and differences to match her level of relation to music. Then practices of music are separated, but also linked by the actions of different actants. They are intervened in by experience or moral judgement, but also by the contextual meanings, the socialisation of the process and the expected encounter. As Hennion (2007, 2010) states, music is an activity, and is not just the appreciation of an object but a constructed notion that involves the object of pleasure and the receiver.

And at the centre of this argument is the listener, a turn required to get a deeper understanding of the digitisation of consumption. Discursive strategies are an important part of the musical life of listeners: they let listeners flow through the social world with its own restrictions and possibilities. Finally, this view enriches the concept of mediation, in the language created more specifically in ANT, building a two-way passage between them, if indeed they have ever been separated.

NOTES

1. These sellers are called *bocineros*, which would be translated as 'loudspeakerers'.
2. A dollar equates to 18 pesos as of January 2016.
3. In the case of movies, there is still a wide market around DVD (digital video disc) counterfeit copies that contain exactly the same as an 'original' DVD.

BIBLIOGRAPHY

- Acord, S. K., & DeNora, T. (2008). Culture and the arts: From art world to arts-in-action. *Annals of the American Academy of Political and Social Science*, 619(Cultural Sociology and Its Diversity), 223–237.
- Aguiar, J. C. (2011). The ambivalent relation between state and illegal actors: Piracy retail in Mexico. *Etnográfica. Revista Do Centro Em Rede De Investigação Em Antropologia*, 15(1), 109–128.
- Andersson, J. (2010). Peer-to-peer-based file sharing: Beyond the dichotomy of 'downloading is theft' vs. 'information wants to be free' how Swedish file-sharers motivate their action. *Media & Communications*. London, Goldsmiths:University of London.
- Ávila-Torres, V. (2014). La construcción Socio-técnica de la música digital. Master in Communication thesis, Universidad Iberoamericana.
- Beer, D. (2010). Mobile music, coded objects and everyday spaces. *Mobilities*, 5(4), 469–484.
- Bergh, A., & DeNora, T. (2009). From wind-up to iPod: Techno-cultures of listening. In N. Cook et al. (Eds.), *The Cambridge companion to recorded music*. Cambridge: Cambridge University Press.
- Bueger, C. (2015). Making things known: Epistemic practices, the United Nations and the translation of piracy. *International Political Sociology*, 9(1), 1–18.
- Bull, M. (2010). iPod: Un mundo sonoro personalizado para sus consumidores. *Comunicar*, 34(XVII), 55–63.
- Cross, J. C. (2012). Mexico. In J. Karaganis (Ed.), *Media piracy in emerging economies*. New York: Social Science Research Council.
- DeNora, T. (1999). Music as a technology of the self. *Poetics*, 27, 31–56.
- DeNora, T. (2000). *Music in everyday life*. Cambridge, UK: Cambridge University Press.
- Hennion, A. (1993). *La Pasión Musical*. Buenos Aires: Ediciones Paidós Iberoamérica.
- Hennion, A. (2001). Music lovers. Taste as performance. *Theory, Culture & Society*, 18(5), 1–22.

- Hennion, A. (2007). Those things that hold us together: Taste and Sociology. *Cultural Sociology*, 1(1), 97–114.
- Hennion, A. (2010). Gustos Musicales: de una sociología de la mediación a una pragmática del gusto. *Comunicar*, XVII(34), 25–33.
- IPRC (Intellectual Property Rights Committee). (2011). *4th survey in pirated and counterfeit product consumption in Mexico*. Mexico: American Chambers Mexico.
- Latour, B. (2007a). *Nunca Fuimos Modernos. Ensayos de Antropología Simétrica* (1a ed.). Buenos Aires: Siglo Veintiuno Editores.
- Latour, B. (2007b). *Reassembling the social: An introduction to actor-network theory*. Oxford: Oxford University Press.
- Law, J. (2002). *Aircraft stories: Descentering the object in technoscience*. Durham, NC: Duke University Press.
- Magaudda, P. (2011). When materiality ‘bites back’: Digital music consumption practices in the age of dematerialization. *Journal of Consumer Culture*, 11(1), 15–26.
- Marshall, L. (2011). The sociology of popular music, interdisciplinarity and aesthetic autonomy. *The British Journal of Sociology*, 62(1), 154–174.
- Mol, A. (2002). *The body multiple: Ontology in medical practice*. Durham: Duke University Press.
- Mol, A., & Law, J. (2004). Embodied action, enacted bodies. The example of hypoglycaemia. *Body & Society*, 10(2–3), 43–62.
- Nowak, R. (2014). Investigating the interactions between individuals and music technologies within contemporary modes of music consumption. *First Monday*. Retrieved May 21, 2016, from <http://firstmonday.org/ojs/index.php/fm/article/view/5550/4129>
- Prior, N. (2013). Bourdieu and the sociology of music consumption: A critical assesment of recent developments. *Sociology Compass*, 7(3), 181–193.
- Sterne, J. (2012). *MP3 The meaning of a format*. North Carolina, EUA: Duke University Press.
- Straw, W. (2009). In memoriam. The music CD and its ends. *Design and Culture*, 1(1), 79–92.
- Straw, W. (2012). Music and material culture. In M. Clayton, T. Herbert, & R. Middleton (Eds.), *The cultural study of music: A critical introduction* (pp. 227–236). Oxon: Routledge.

Reading Songs, Experiencing Music: Co-creation, Materiality and Expertise in Beck's *Song Reader*

Antoni Roig and Gemma San Cornelio

As is made clear throughout this book, the recording music industry has been living under profound processes of transformation, marked by uncertainty (see also Bull 2007; Magaudda 2011). Several strategies aimed at strengthening ties between artists and listeners have developed. The case study we analyse in this chapter, Beck Hansen's sheet music project *Song Reader* (SR hereafter), is an important example of this trend. There are many initiatives aimed at fostering engagement that can help us situate this case study in the context of networked music culture(s): interaction through social media, crowdfunding of recordings or gigs, open licences for redistribution, interactive personalised experiences (providing unique experiences to each 'user'), customised events (like 'house concerts'), endorsement of alternative means of distribution (like the experiments made through BitTorrent or iTunes) and calls for collaboration in creative processes (often through contests). This last category, in turn, includes

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a great variety of practices, from lyric writing to crowdsourced music videos, alternative versions, remix contests, album art and content customisation, crowdsourced composition or playing, the use of tools for collective creation or, as would be the case in SR, performing previously unreleased songs. Some of these industry-led exponents are connected to related branding campaigns (as in the case of Apple, Dell or Ballantine's). Furthermore, it is important to take into account, as Baym (2007) states, that engagement is a two-way collaboration, with fans assuming roles like publicists, promoters, archivists and curators of a band, a style, a local scene or any other kind of music cultural domain, fostering a mutual dependence (Baym and Burnett 2009, p. 434).

This chapter presents a detailed case study of the SR project by Beck Hansen. SR was initially produced in book format in 2012, containing music sheets of 20 unreleased songs, illustrations and some introductory notes inviting fans to perform and adapt them freely. It led to a creative burst, with different Beck-curated versions and many other appropriations performed and released, constituting a valuable source for cultural analysis.

In our previous research on creative practices in new media—mostly with a qualitative and case study-based approach—we have focused on issues like participation, expertise, co-creation, authority, affection and nostalgia in different cultural domains, from filmmaking to online video, games, photography or music (Roig and San Cornelio 2014; Roig et al. 2014; San Cornelio and Gómez-Cruz 2014). In the case of SR, we have been tracking the project in its different manifestations from 2012 to 2015. The analysis includes all the socio-technical devices involved: the object (book), the official website, related news and articles, uploaded song performances, music videos and different fan initiatives related to the project. Through all this material we aim to identify and discuss the different implications of the project regarding key concepts in contemporary networked music cultures, such as participation, materiality, ownership and expertise, authorship and nostalgia.

In the following section, we briefly introduce some of these key concepts and how they come into play in our analysis of SR.

7.1 CONCEPTUAL FRAMEWORK

Many of the experiences enumerated in the introduction use *participation* as a means for engagement, particularly those labelled *calls for collaboration in creative processes*, including *crowdsourcing* initiatives. Contrary to

the position of Leie and Barth (2014), we do not consider SR a crowd-sourced project. Even if SR might share some elements with crowdsourced initiatives (there is a clear initiator, a call to a massive public and specific forms of expertise involved), there is no problem-solving approach, no specific tasks to be fulfilled, no clear ownership of possible outcomes and no converging ‘final’ product resulting from crowd activity, which are key features of crowdsourced projects (Estellés-Arolas and González-Ladrón-de-Guevara 2012). Rather, we see SR as a co-creative experiment, where participants engage in a significant part of a creative process and eventually lead it, in a way that allows for appropriation and even commercialisation (Roig et al. 2014). In our case, the initiator exerts the minimum amount of control possible, staying behind the scenes in order to foster collective and disseminated creativity.

Another key issue in the relation between artists, industries and audiences is the notion of *materiality*, which has undergone profound changes as a consequence of digitisation, even though, as Nowak (2014) states, it has received insufficient attention in the field of music research. A possible academic approach to materiality consists of the analysis of the impacts of technology on the development of playing, recording, listening, accessing or distributing music (Pinch and Bijsterveld 2003). Specifically, analysis of reception and consumption, and of how different technologies (including music sheets) shape different ways of experiencing music, is particularly relevant for this chapter. De Nora (2000), one of the most notable authors contributing to this perspective, introduces the notion of ‘affordances’ (taken from the science and technology studies perspective, or STS) as related to music in everyday life. Thus, a specific piece of technology ‘affords’ some uses (and not others) in relation to a field or context of use and practices of interaction. In this way, music takes part in a complex system of material interactions in which the aesthetic form is an integral part of the analysis. For Nowak (2014), studies of materiality in music consumption entail a more technology-oriented focus. In our case study, many different technologies play their part in constituting an entangled relationship between fans, producers, editors and Beck himself. SR is presented as a book formed by carefully illustrated sheet-music folders: as only the compositions are subject to copyright (Lund 2013), performances and appropriations are encouraged, being materialised in different forms and technologies, including music videos, fan art, online contests, organisation of concerts, performances and exhibitions.

Participatory and open cultural projects raise the issue of *expertise*—and the related notion of authority. These projects usually demand from their participants different kinds of specific skills and competences: for instance, in the case of participatory media projects, skills in audio recording, storytelling, video shooting, animation, graphic design or video editing are required, and greatly shape participatory processes (Roig et al. 2014).

According to Ross (2010), there are different types of expertise related to knowledge production. Drawing on Collins and Evans (2002), he identifies, on the one hand, contributory expertise, which defines an actor's capacity to make substantive contributions to a specific field (Collins and Evans 2002, p. 257). On the other hand, he considers the notion of interactional expertise as useful for understanding the actions of individuals; this is the case for managers, who do not have to possess the contributory expertise of all individuals under their supervision but must possess an advanced understanding of this (Ross 2010, p. 914). Nevertheless, Ross acknowledges that both contributory and interactional expertise are at a higher level of competence not possessed by most members of the general public.

In the case of music, different layers of expertise can be identified: reading music, playing instruments, performing and possessing a sense of appreciation or contextual knowledge of music. An initial identification of such levels can be found in the analysis of SR by Leie and Barth (2014, p. 422), who distinguish between three different types of participants: lovers (fans with minimal engagement in playing music), musicians (professionals aiming to achieve more visibility) and journalists working in the music press (who want to enhance their practical knowledge of music). In this regard, we consider that the SR project involves many different types of expertise, although Beck seems to be implicitly expecting a certain music literacy from his audience.

Even in the case of participatory projects, discourses on *authorship*, usually built around the Romantic view of the work of an individual genius, come heavily into play. This is connected to the complex notions of *canon* and *canon formation* in music. However, this is not only related to a specific genre, style, music culture or moment in time, but also to fans' shared values and intrinsic rules concerning what might be the right or more accurate way of performing, creating an imagined projection of the intention of the artist, according to her creative universe (Arewa 2006; Karja 2006). This knowledge, which constitutes another kind of expertise and authority, is connected to another notion of canon coming from fan stud-

ies, where it is understood as the basic set of rules that must be respected in order to maintain a connection between a derivative, or transformative work, and the original source text (Hellekson and Busse 2006). In other words, this approach to canon is closely connected to a notion of individual authorship and authority coming from the original materials that are being subjected to different sorts of expansions and reworking. SR is a good example in this sense: even if appropriation and taking the songs as a starting point are encouraged, they also revolve around a personality, an ‘author’, and fans receive SR as a celebration of the work of a genius, a carrier of innovation and inspiration. Even in cases where some unusual performances are positively valued by fans, they will still be compared in the context of a fan-built canon. Since SR is not just a musical project but also a catalyst of fan creative practices, we will use this notion of canon in the discussion of the case study.

SR plays with ideas around continuities between the present and the past in pop music, bringing up the question of *nostalgia*. Nostalgia can be regarded as a personal, autobiographical feeling—from a psychological perspective—that, consequently, can influence consumption—from a marketing perspective. According to different studies, consumers tend to prefer cultural products (films, music etc.) related to their adolescence and early adulthood (Schindler and Holbrook 2003). Nevertheless, nostalgia can be also considered culturally constructed, since it cuts across a wide range of manifestations throughout history, becoming one of the key formulations related to postmodern aesthetics (Jameson 1990), which revolved around cultural interpretations of the decades that followed the Second World War. This lifestyle is present in films and other audio-visual forms (Denzin 1991, p. 69) and in musical terms is related to the notion of ‘Retro music’ (Guffey 2006). Interestingly, ‘retro’ does not refer to all historical periods; Cartwright et al. (2013, p. 463) found that people have tastes for pop-rock music that was most popular early in their lives or even before their birth. In this sense, Reynolds (2011) argues that the self-revolutionising musical innovation that marked the second half of the twentieth century is so largely exhausted that artists are now primarily in thrall to the past. In one way or another, nostalgia is inherent to cultural production and it appears as cyclically programmed in the music market, but also as a form of alternative consumption. In Hayes’ view (2006), nostalgia is present in some collectives of young people who are turning back to music consumption on vinyl, as a form of resistance to what is perceived as a homogeneous mainstream pop music scene dominated by

a market-oriented perspective and—formed by musicians who are not able to produce albums, but only single hits (Hayes 2006, p. 52). The appreciation for vinyl is partly related to its representation as a more authentic and authoritative way of music consumption. Most importantly, consumption of vinyl is justified by a special sense of materiality (the appreciation of the cover design is a central issue), in turn linked to authenticity—when compared to a clean and synthetic sound from a CD—and physical interaction with the LP (long-playing record)—cleaning, skipping tracks manually, flipping sides (Hayes 2006, p. 60).

All these romantic and somewhat idealised considerations could be transposed to the ideas present in Beck's preface to SR regarding the non-performed music, 'which it could belong to almost anybody', a quality that would be lost with recorded music, particularly in digital environments (Hansen 2012). In this regard, the sensory and material properties of both music sheets and LP covers carry a specific sense of nostalgia that is brought about in the SR project. Despite the fact that Beck avoids considering SR as an exercise in nostalgia, it is clearly observed in the book concept and design, the aesthetics of the individual sheets and the interpretations.

7.2 DESCRIPTION OF THE CASE STUDY: BECK'S *SONG READER*

SR cannot strictly be considered as Beck's first experiment with fan participation: 2006 album *The Information* was released with a blank cover and a series of stickers inviting fans to make their own personalised cover art. By that time, Beck Hansen was already considering the idea of making an album composed exclusively of sheet music, after meeting with McSweeney's editor David Eggers in 2004 (Hansen 2012). However, it would not become a reality until late 2012. The book is made up of a set of carefully designed music sheets—including covers with illustrations and humorous additional music on back covers—a preface by the author, a short guide to music notation and an introduction by music journalist Jody Rose. Rose (2012) defines sheet music as the 'original pop music technology' and stresses the fact that, until the third decade of the twentieth century, music was 'first and foremost a participatory activity', thus describing SR not as a revival, but as a reminder. The participatory aim of the project was reflected through a specific website, Songreader.net,

with information on the book, upcoming events, and links to sound and video performances of the songs on external platforms such as YouTube or SoundCloud.

Another important aspect is Beck's expressed intention of not recording these songs. In a Q&A (question and answer) session in February 2013, he stated: 'I wasn't planning on it [recording the songs]. Initially I just wanted people to get their hands on the songs and not be influenced, because I think recordings have become definitive for songs over the decades [...] so I thought there was something interesting about the period before recorded music where songs didn't have anyone telling you how to play it or how to hear it or how to feel it' (quoted in Stutz 2013). Indeed, in all promotional activities surrounding the book release, Beck has kept a low profile as a musician, even if, as can be deduced from the previous quote, he kept the door open to possible future performances, as would finally transpire to be the case.

7.3 CHRONOLOGY OF THE PROJECT

In this section we will describe the key moments of the SR project, particularly during 2012, 2013 and 2014. We will focus on promoters, artist and fan-driven initiatives, some of them particularly significant in shaping creative practices around SR and configuring different stages for the project, which we will use as a convention for the sake of clarity of exposition. A visual representation of the chronology can be found in Fig. 7.1.

7.3.1 *Pre-release*

In August 2012, Beck and publisher McSweeney's announced the release of the SR book, due in December 2012, alongside a preview image of the sheet-music page of a new song, 'Do We? We Do', which was then made available. Even if not seemingly intended to elicit fan creativity, just a few hours later the first version of the song was released and a fan initiative was established, both on Tumblr (oursongreader.tumblr.com) and YouTube. It would not be until 15 November that a pdf document of the song 'Old Shanghai' was released as a sample, and new versions popped up immediately.

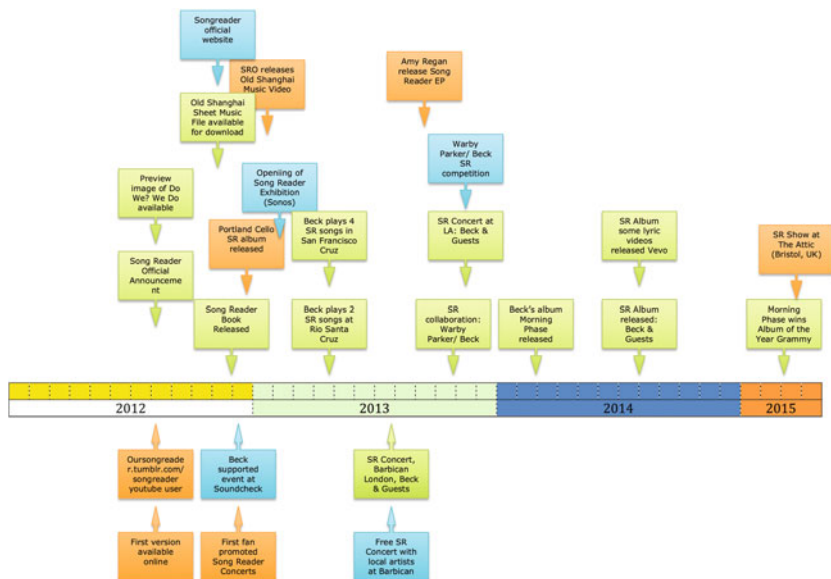


Fig. 7.1 *Song Reader* chronology. *Source:* Authors

7.3.2 Book Release, Promotion and Early Fan Events

On 7 December 2012 the book was officially released, accompanied by an official website. Two events took place as part of the promotional campaign. Four days before the official release, a concert took place at Rough Trade East in London (access only by pre-ordering the book) with renowned artists like Carl Barat (The Libertines), Ed Harcourt (who would end up being involved in future SR events) and Steve Mason (The Beta Band). A few days later, on 13 December, a promotional session at Soundcheck in New York started with an interview with Beck. Afterwards, Stephen Merritt (The Magnetic Fields) played a version of ‘Old Shanghai’, followed by a performance by non-professional singer-songwriter Amy Regan, promoter of one of the events competing to become the first performance of the whole album. Although she would be anticipated by an SR concert by The Perfectly Violent Dream in Austin, Texas by a mere three days, Amy Regan’s stage presence came to promote her as a fan favourite. Other early fan concerts were held in Sydney (18 December, part of a fundraising event for the Sydney Story Factory) and New York (11 January). In fact, most of the fan activity took place at this stage.

7.3.3 *Curated Events and First Beck SR Performances*

From 21 February to 24 March 2013, an SR Exhibition took place at Sonos Studio (New York), aimed at providing ‘an environment specifically tailored to both experience these audience interpretations and to create them, giving the project a physical home, as well as another layer: a live, real-time experience’ (Sonos 2013). This experience included Play and Record facilities, installations based on artwork from the book. An opening event started with a chat session with Beck himself and was followed by performances by local artists, including Amy Regan.

In May 2013, Beck played several SR songs in a couple of concerts in California. This was the first time that an audience was able to listen to four ‘canonical’ versions (‘Sorry’, ‘America Here’s My Boy’, ‘Don’t Act Like Your Heart Isn’t Hard’ and ‘Heaven’s Ladder’). Some unofficial recordings of these performances made their way to YouTube, thus finding a wider audience.

7.3.4 *Beck and Friends: The SR Concerts*

On 4 July, the first full ‘official’ SR concert took place at the Barbican Centre in London. The show combined musical and spoken-word sections, with an array of renowned artists including Beck and Jarvis Cocker, Franz Ferdinand, Charlotte Gainsbourg, Beth Orton, The Mighty Boosh, Joan Wasser and Villagers’ Conor J. O’Brien, under the musical direction of Ed Harcourt and David Coulter. With much less press coverage, that same afternoon a free concert with local artists was also held at the Barbican. Five months later a similar initiative took place at the Walt Disney Concert Hall in Los Angeles (LA), California, this time just one show with professional musicians, including Jon Brion, Jarvis Cocker (the only guest present at both concerts, performing the same song, ‘Why Did You Make Me Care?’), John C. Reilly, Van Dyke Parks, Juanes, Anne Hathaway and Jack Black—among many others—with the LA Philharmonic.

7.3.5 *Warby Parker, New Record and SR Studio Album*

The LA concert marked the beginning of collaboration between Beck, McSweeney’s and Warby Parker, an independent glasses manufacturer, which sponsored a short-lived SR contest through covers of the song ‘Sorry’ to promote the concert and the partnership. These later performances were uploaded to SoundCloud and YouTube and embedded on

the official SR website. By that time a new conventional album, *Morning Phase*, had already been announced and set for a February 2014 release.

Several months after that, in August 2014, an SR studio album co-produced by Beck was released through his new label Capitol, without much publicity and featuring again not only Beck, but also top guest collaborations, mainly from the USA, with a few of the performers who had been present at previous live events. Three lyrics videos from artists Jack White, Beck and Juanes were uploaded to their respective YouTube and Vevo artist pages. The SR album was presented as a charity record, tied again to Warby Parker, and does not appear in the discography on Beck's official site.

7.3.6 *Fan-Created Recording Projects*

Beyond individual recreations and live performances, through these years different fan-made studio albums have been released independently through artists' sites and different music portals: *The Portland Cello Project* (December 2012), a full album with all the SR songs (also commercialised in CD format); *The Sydney Sessions* (a collection of studio versions by Australian musicians released in July 2013 as a follow-up to the 2012 Sydney fundraising event); and Amy Regan's four-track digital EP (extended play; September 2013). The Seattle Rock Orchestra included a studio version of Old Shanghai on its website, accompanied by a fairly popular music video. Other artists releasing SR recordings were The Perfectly Violent Dream (a live recording of the first fan-made SR Concert) and The Song Preservation Society. Although Beck hinted at a possible official SR album made from fan contributions, it has not yet happened.

7.4 CASE DISCUSSION

7.4.1 *Expertise and Canon*

Beck's initial decision not to record the songs entailed some risks, the first being alienating that part of the audience unable or unwilling to take the challenge of learning to play the songs. In this regard, the book was intended 'to stand alone as an object, aside from the music' (Hansen 2012), thus constituting a sensory experience in terms of book size, cover, quality of impression, paper texture, smell and independent folding sheets for each song. It could be considered that aesthetics, as a form of mate-

riality (De Nora 2000), were located at the foreground of the project. In fact, according to Leie and Barth (2014), these qualities were especially valued by less experienced participants. However, for Lund (2013), not all the initial fan reactions to the SR project were positive: some stressed its exclusionary nature, as enjoyment of SR is presented as tied to music literacy (p. 62), thus establishing an entry barrier based on specific kinds of expertise.

The skills suggested for engaging in the SR experience could go well beyond the ability to read music (or at least chords), involving also playing an instrument, recording the sound—and probably also video—and uploading it in order to share the performance with others. In fact, many of the most popular SR performers are seasoned live performers and ensembles, either solo artists, pop bands or orchestras, as is the case for two of the most popular acts in SR, the Portland Cello Project and the Seattle Rock Orchestra.

Yet the SR Project was not only about the music itself: the visuals are equally important, and many performers had a go at creating a music video (Beck is also renowned for his experiments in music video and music for videogames such as *Sound Shapes*). Certainly, most videos are plain live performances of a given song—often intimate individual performances in home settings or recording studios. That said, many of the most popular renditions are accompanied by more or less traditional music videos. As we will discuss later, they can be interpreted as a means of promotion in social media, but also as evidence of the aesthetically intimate connection between performer and the ‘author’, shaping, as we have already said, one of the most important implicit rules in SR as a practice.

SR brings a form of materiality, closely connected to a ‘past’ before music recording. During the first weeks of the project (even before if we count the early August 2012 sample), the initial nature of ‘unrecorded’ and ‘unperformed’ music led to a notable excitement, even to some anxiety in bringing the music to life as soon as possible. There are two seemingly contradictory assumptions surrounding this initial buzz. On the one hand, there is the idea of SR as an act of freedom, as the starting point for multiple possibilities. This is precisely what is emphasised in the press coverage of the project, pointing at the most ambitious but also the weirder performances. In the book preface, Beck invites everyone to change the chords, rephrase the melodies and so on, since, he says, ‘the arrangements do not originate from any definitive recording or performance’ (Hansen 2012). At the same time, participants will probably at least be considering

what is supposed to be a proper interpretation akin to what Beck would 'have in mind', connecting to an imagined Beck canon. This would be further complicated as Beck was increasingly involved in performances and events in 2013 and 2014, ending with a studio album with celebrity guests.

In the end, SR is closely related to the musical trajectory of a pop music celebrity, known for his eccentricity and eclecticism: electronic music, rock and folk are equally important parts of his work, as well as his notable collaborations in different cultural fields. Therefore, Beck's outstanding trajectory casts a long shadow in determining which versions can be considered more faithful to what would be expected from him if he had recorded them. Consequently, there is another kind of expertise to be considered: the evaluation of quality and relation to a fan-built 'canon', leading to a sense of authority over the outcomes. This is not to say that fan performances pretend to be imagined cover versions, but it is true that in the absence of an original, the idea of a sort of 'reliable' approach to a song might come up, as well as a celebration of what are perceived among fans as quality re-imaginings, as is the case with the Portland Cello Project or the Seattle Rock Orchestra.

Perception of a 'fan canon' is exemplified by a complete review of the Barbican event by London blogger Dannyrambles. In his detailed song-by-song review, the writer projects different visions of a canon regarding the aims of the project (celebration of the philosophy of the project and a tribute to Beck as an artist, a performance showcasing the whole point of SR as artistic inspiration and interaction), the 'real' vision of the artist ('everything I imagine that song was originally written to be' or 'meant to become'), a certain rank among fan versions ('not as good as past interpretations', 'resembling the excellent one by The Portland Cello Project') and notions of music materiality ('Old Shanghai' as the album's first 'single', or a desire to 'own' a specific version; Dannyrambles 2013).

As is made clear in official live and curated events, the artistic vision of the project is not confined to music, also involving sensory experiences (the Sonos installation) or spoken-word, video and poetry sections in the Beck SR concerts in London and LA. The nature of the project opens the door to another possibility for those who have other kinds of expertise: sound experimentation through remixes or spoken-word reinterpretations. Among the few actual exponents found, an interesting example is Joseph Barry's singular version of 'Do We? We Do!', combining spoken word with a politically charged cartoon using the do-it-yourself (DIY) animation tool Xtranormal.

7.4.2 *Beyond the Music: The Visuals*

Since SR is ultimately a book, the aesthetics are very important in tying the experiment to the past—in visual and musical terms. In this regard, it recalls examples of graphic design applied to music sheets of the 1940s, even if SR displays more avant-garde styles than the popular Jazz Standards and Christmas music sheets of that time. This would be the case for ‘Do We? We Do!’ (Sergio Membrillas)—more reminiscent of a Cubist style—or ‘Old Shanghai’ (Kesley Dake), in an Op art fashion.

The project thus involves rethinking music-sheet covers from a contemporary perspective, relying on current artists who produce a variety of images, updating an ‘old-fashioned’ object and yet keeping it reminiscent of the past. This was the concept used by renowned illustrator Marcel Dzama (who had previously designed the cover artwork for Beck’s *Guero* album), who coordinated the visuals and also contributed to the cover of the song ‘Mutilation Rag’. In accordance with this visual suggestion, some of the music pieces are acoustic and voice performances that take us back to the early recording era. On the other hand, the artwork that accompanies different fan performances tries not only to mimic the visuals of the book, but also to provide a personal interpretation of an ‘oldie’ aesthetic. Here we detail a few examples. The first live performance of SR was at the Rough Trade East concert in London, as part of the promotional campaign for the book. The poster not only closely reproduces the visual aesthetics of the book, but is also coherent with the whole idea of a nostalgic approach to popular music performance. A similar case is the art created for Amy Regan’s cover for her EP, reminiscent of female artists from the 1940s and early 1950s. Another kind of visual re-appropriation based on nostalgia is the use of black and white, which also connects to previous artwork by Beck, in this case *Modern Guilt*, revamped by The Perfect Violent Dream. Other promotional artwork from the same act draws on early twentieth-century pictures and states ‘recorded 100 years ago’.

As we have already stated, SR music videos are also relevant aesthetic artefacts: they tend to represent ordinary features of simplicity, with unweighted and low-resolution aesthetics (Vernallis 1998, p. 243), and so aligned with the majority of Internet music videos. In this respect, an interesting case is the most popular fan-made music video on YouTube, ‘Now That Your Dollar Bills Have Sprouted Wings’ by Max Miller, where a simple acoustic version of the song serves as the background for a video consisting of a handmade exact reproduction of the SR book cover made

with string, paper and scissors. The video follows the style of DIY tutorials, being at the same time a love letter from a fan as well a deliberate detour from the usual conventions and tropes of music videos.

It can be argued that the visual aesthetics in SR, through its cover design for each song, its overall coherence and even the outline of the music on paper, are trying to provide a sort of affective experience for the reader, in order to shape an initial idea of how this music should sound. As has been observed in the study of music video (see Vernallis 1998), musicologists consider that the different musical lines in a piece of music have ‘contours’, which are described by some composers as visual shapes, and in music videos ‘the shape of the musical line can correlate to the shape of the visual images ... [Thus, the] spatial and aural shapes can also correlate to emotional affects ... We respond to imagery and music that work together to reflect these spatial relationships’ (Vernallis 1998, p. 157).

7.5 CONCLUSION

As stated in the chronology section and summarised in Fig. 7.1, the SR project has undergone different stages. The evolution of the project can be seen as the result of negotiation concerning how to sustain through time the initial and allegedly radical idea of not performing the songs in order to allow for the greatest possible freedom. This was coherent with the initial minimal involvement of Beck as a performer, and his adoption mainly of the role of a curator and facilitator of events, to which renowned musicians inside and outside the pop and rock scene were invited, and where there were also spoken-word, screening and poetry sections. However, Beck also played some songs five months after the book’s release, which were, unsurprisingly, quickly uploaded by users to YouTube. Observing the timeline, it can be argued that, whether planned or not, Beck intervened at different points to shape and keep his artistic project alive, ending it officially with a collective studio album recorded with renowned musicians and no fans whatsoever.

Two years later, we have found a combination of authorial (Beck’s tour performances), curated (SR concerts, album), facilitated (fan performances in promotional events) and encouraged performances (self-organised fan activity). Although in 2015 the songreader.net site was still active, its ‘Interpretations’ section is not searchable and makes it difficult to quantify the actual number of fan contributions. In fact, there are only about 60 songs tagged to the Warby Parker contest, pointing to a low

level of participation there. This contrasts with the more than 20,000 videos uploaded to YouTube with the tag ‘Song Reader’, according to our own search, conducted in June 2015.

This research allowed us to identify in a privileged position the three official lyric videos by Jack White, Beck and Juanes (2014 album), plus unofficial uploads of live performances from 2013 by Jenny Lewis and Anne Hathaway (LA concert) and Beck (SR live debut at the Rio Theatre, Santa Cruz, California). Among the fan-made performances, versions from the Portland Cello Project and the Seattle Rock Orchestra stand out, as well as two versions by Max Miller. It is important to note that all the aforementioned fan versions were uploaded between December 2012 and February 2013—that is, during the peak activity period—and all of them feature music videos, some of them quite elaborate. An exception is Max Miller’s lyric video for ‘Do We? We Do!’, considered the first version available of an SR song.

On the other hand, the studio album released in 2014 raises additional questions. First, it contradicts the initial statement. Although Beck only performs one song on the album, ‘Heaven’s Ladder’, he was the co-producer, maintaining artistic control over the final result. Second, this is an album played by highly renowned musicians, with no trace of fan contributions. It was stated at some point that there would be an official album with non-professional musicians, but this plan has not yet been materialised, and at the time of writing there is no visible sign that it will eventually happen. One reason for this could be the aim of keeping fan activity open and less normative, which would imply that the project’s cultural significance resides in its proliferation, rather than in picking ‘best of’ fan performances, which are then turned into a canon.

However, in terms of engagement, SR can be considered a successful co-creation experiment, led initially not only by Beck but also by publishing company McSweeney’s. SR succeeded in raising expectations of different kinds of audiences from its very beginning, recalling a sense of nostalgia for a pre-recording music era through the book design and the call for participation. Consequently, it fostered a diverse range of participatory cultural practices, particularly during its first months. This affective dimension was enhanced by the possibility of owning the performance of a Beck composition, allowing for the production of fan-made albums and shows. Once the novelty value had passed, there was more activity from the musician, and from third parties like Warby Parker. In this last phase, participation and creative freedom have become somehow determined by

industrial practices (publishing company, record label, tour activity, sponsorship) and the call for specific kinds of expertise, not only related to musical performance but also affective appreciation of the versions created, connected to a sort of 'fan canon'.

Finally, as a disruptive object, SR succeeds in presenting itself as an alternative in terms of materiality, fostering reflection on the present by looking at a distant past. As a co-creative project, while it appeals mainly to specific types of audiences with particular forms of expertise, and although it does not really maintain continuous interaction with these participants over time, it presents fascinating avenues to be explored.

BIBLIOGRAPHY

- Arewa, O. B. (2006). From J.C. Bach to hip hop: Musical borrowing, copyright and cultural context. *North Carolina Law Review*, 84, 547–645.
- Baym, N. K. (2007). The new shape of online community: The example of Swedish independent music fandom. *First Monday*, 12(8).
- Baym, N. K., & Burnett, R. (2009). Amateur experts: International fan labour in Swedish independent music. *International Journal of Cultural Studies*, 12(5), 433–449.
- Bull, M. (2007). *Bergson's iPod? The cognitive management of everyday life. Sound moves: iPod culture and urban experience*. London: Routledge.
- Cartwright, P., Besson, E., & Maubisson, L. (2013). Nostalgia and technology innovation driving retro music consumption. *European Journal of Innovation Management*, 16(4), 459–494.
- Collins, H. M., & Evans, R. (2002). The third wave of science studies. Studies of expertise and experience. *Social Studies of Science*, 32(2), 235–296.
- Dannyrambles. (2013). *Beck song reader live at the Barbican Centre*. Retrieved August 15, 2015, from <http://dannyrambles.tumblr.com/post/54665346922/beck-song-reader-live-at-the-barbican-centre>
- De Nora, T. (2000). *Music in everyday life*. Cambridge: Cambridge University Press.
- Denzin, N. K. (1991). *Images of postmodern society: Social theory and contemporary cinema*. London: Sage.
- Estellés-Arolas, E., & González-Ladrón-de-Guevara, F. (2012). Towards an integrated crowdsourcing definition. *Journal of Information Science*, 38(2), 189–200.
- Guffey, E. (2006). *Retro: The culture of revival*. London: Reaktion Books.
- Hansen, B. (2012). Preface. In *Song reader*. London: McSweeney.

- Hayes, D. (2006). 'Take those old records off the shelf': Youth and music consumption in the postmodern. *Popular Music and Society*, 26(1), 51–68.
- Hellekson, K., & Busse, K. (2006). *Fan fiction and fan communities in the age of the Internet*. McFarland: Jefferson.
- Jameson, F. (1990). *Postmodernism, or the cultural logic of late capitalism*. Durham, NC: Duke University Press.
- Karja, A. V. (2006). A prescribed alternative mainstream: Popular music and canon formation. *Popular music*, 25(1), 3–19.
- Leie, L., & Barth, M. (2014). Crowdsourcing na música—análise de caso do projeto *song reader* do cantor Beck Hansen. *Laboratório Interdisciplinar Em Informação E Conhecimento*, 51, 415–430.
- Lund, J. (2013). Fixing music copyright. *Brooklyn Law Review*, 79, 61.
- Magaudha, P. (2011). When materiality 'bites back': Digital music consumption practices in the age of dematerialization. *Journal of Consumer Culture*, 11(1), 15–36.
- Nowak, R. (2014). Investigating the interactions between individuals and music technologies within contemporary modes of music consumption. *First Monday*. Retrieved May 21, 2016, from <http://firstmonday.org/ojs/index.php/fm/article/view/5550/4129>
- Pinch, T. J., & Bijsterveld, K. (2003). 'Should one applaud?' Breaches and boundaries in the reception of new technology in music. *Technology and Culture*, 44(3), 536–559.
- Reynolds, S. (2011). *Retromania: Pop-rock culture's addiction to its own past*. London: Faber & Faber.
- Roig, A., & San Cornelio, G. (2014). Co-creation practices in music videos: The case of evolution of get lucky. *Revista Anàlisi*, 51, 49–63.
- Roig, A., et al. (2014). 'The fruits of my own labour': A case study on clashing models of co-creativity in the new media landscape. *International Journal of Cultural Studies*, 17(6), 637–653.
- Rose, J. (2012). Introduction. In *Beck Hansen's song reader*. New York and London: McSweeney's.
- Ross, P. (2010). Is there an expertise of production? The case of new media producers. *New Media & Society*, 13(6), 912–928.
- San Cornelio, G., & Gómez-Cruz, E. (2014). Co-creation and participation as a means of innovation in new media: An analysis of creativity in the photographic field. *International Journal of Communication*, 8, 1–20.
- Schindler, R. M., & Holbrok, M. B. (2003). Nostalgia for early experience as a determinant of consumer preferences. *Psychology and Marketing*, 20(4), 275–302.

- Sonos. (2013). Sonos studio explores Beck Hansen's *song reader* through art and interpretation. Retrieved August 31, 2015, from <http://blog.sonos.com/news/sonos-studio-explores-beck-hansens-song-reader-through-art-and-interpretation/>
- Stutz, C. (2013, February 23). In rare public appearance, Beck Talks Sheet Music Project, participates in Awkward Q&A. *Hollywood Reporter*. Retrieved August 31, 2015, from <http://www.hollywoodreporter.com/earshot/rare-public-appearance-beck-talks-423632>
- Vernallis, C. (1998). The aesthetics of music analysis of Madonna's video 'Cherish'. *Popular Music*, 17(2), 153–185.

The Digital Music Boundary Object

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‘Digital music’ is an umbrella term. It emerged in the 1980s to describe the technical affordances of the compact disc (CD) format, but it has acquired a range of meanings with the advent of digital audio files (in formats such as MP3, WAV, WMA, FLAC and AAC), file sharing (peer-to-peer, torrents, direct downloading, offline file swapping), networked music cultures (online trends, scenes, subcultures and so on) and the legal, technological, policy and media substrates of, and responses to, these phenomena. Digital music is a feature of ways of talking, or discourses, differentiable across intersecting social, cultural, technological, economic and political lines. These discourses ostensibly refer to the same topic, but converge on it with discrete viewpoints, contexts and methodologies, and thus do different things with the topic of their talk. As such, digital music is an object encountered at boundaries, used to delineate borders demarcating different social worlds.

In this chapter, we conceptualise digital music as a *boundary object*, drawing on the use of this concept in anthropology, science and technology studies and sociology (see Bowker and Star 1999; Law 2004;

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McSherry 2001; Star 2010; Star and Griesemer 1989; Strathern 2004). Boundary objects permit conversations across social borders, without consensus as to the definitive features of the topic or 'object' of conversation. Different parties to the conversations about and around digital music utilise it as a means of articulating their own perspectives, particularly regarding how they believe it should be understood ethically (where this usually also implies various understandings along economic lines).

Thus, we intend to describe how discourses about digital music have political implications concerning how various social worlds intersect and coalesce the topic of talk (the corporate music industries, copyright law, creative labour, fan communities, software design, underground scenes, mainstream journalism and so on). These discourses can be evidenced in familiar, widely repeated stories, where the ostensibly novel consequences of 'the digital' are often emphasised. These stories are invariably bundled with usually tacit implications for how the idea or referent of digital music is to be understood or used, what it represents and where it should be headed.

Digital music is not a unified object with a clear trajectory, or universal cultural and social consequences. Rather, it is constituted by multiple protocols, materialities and objects, which are acted on and embedded in actions and practices, and framed by discourses. It is articulated in specific social, cultural and economic contexts, across existing and dynamic economic and political vectors. We are not in pursuit in this chapter of what digital music 'really is', because this is not a question that has a definitive answer. The deployment of the boundary object model here is not intended as a transcendent or meta-theoretical account. Rather, we hope to draw out specific themes or threads of these discourses, so as to highlight sociologically significant implications in how digital music is often talked and thought about. The boundary object is for us a heuristic, an explanatory mechanism by which light can be shed on the features of digital music which we think are important to attend to; a means of opening discussion rather than imposing definition.

We locate warrant for such an exercise by situating our analysis with respect to a long tradition in social and cultural theory, of which the best-known exponents are likely Adorno (2002), Attali (1985) and Weber (1958). According to this tradition, music is a key cultural form for organising and articulating social experience, such that developments in how music is organised and produced are often understood, at some level, to herald in turn developments in how society is organised and produced.

Our core argument is that discourses about digital music are therefore consequential in the terms given by this tradition, because talking about music is a way of talking about the future.

To demonstrate this, we first focus on three emblematic stories from the last decade in digital music. Taken together, the stories recounted here highlight key features of the dominant formations by which digital music is articulated: they construct it as a unitary entity, although effectively they represent fragments or prisms of something much wider or ‘messier’. Following this, we contextualise these stories with respect to the boundary object concept. We conclude by attending to the critical implications and consequences of conceptualising digital music in this way.

8.1 NARRATING DIGITAL MUSIC

In this first section, we attempt to shed light on the discursive features of the digital music boundary object by investigating how some iconic stories about or around digital music have been framed and discussed. Our aim is to highlight how these stories represent particular interests and directions in digital music.

8.1.1 In Rainbows

We begin with the renowned band Radiohead. In October 2007, when Radiohead released their seventh album, *In Rainbows*, on a ‘pay-what-you-want’ basis, observers debated both the success of the project and the significance of the precedent. Announced ten days before its release, *In Rainbows* was available as a digital download, for which fans could specify the cost (including \$0), and as a ‘discbox’ containing vinyl records and CDs (in addition to access to a digital download). At the time, the band were in a dispute with their former recording company, EMI, concerning the rights over their music (see Morrow 2009). *In Rainbows* was more successful than any of their previous six albums. However, it was almost impossible for observers to measure the average price downloaders had paid, or how many downloaders had chosen to pay.

Music industry scholar Guy Morrow, discussing the extent to which the initiative was successful, argued that Radiohead had changed the rules of music distribution: ‘While Radiohead have been able to use their star status to challenge the status quo, their latest efforts are helping to develop a business that will be less dependent on “hits” and “stars”’

(2009, p. 166). At the time, iTunes had only begun to present a credible legal model of music distribution to sidestep the failing CD market and counteract copyright-infringing file sharing. Radiohead's initiative seemed to represent an economic alternative, of the sort professional musicians with precarious livelihoods have long been interested in. Morrow added: 'Radiohead have also embraced the fact that the record industry's pricing model has been outmoded' (2009, p. 170). These comments were made shortly after the release of *In Rainbows*, considering the extent to which this initiative inspired Radiohead, and other bands, to further develop alternative models of distribution is a plausible means of evaluating their prescience.

In Rainbows was released on CD and vinyl disc in December 2007; the band had not abandoned these formats. Their activities since are instructive. They released their eighth album, *Kings of Limb*, as digital downloads, CD and vinyl disc in 2011, and their ninth album, *A Moon Shaped Pool*, as digital downloads, CD and vinyl disc. Bandleader Thom Yorke released a solo album (*Tomorrow's Modern Boxes*) in 2014, and an album with the band Atoms for Peace (*AMOK*) in 2013, both on CD and as paid digital downloads on platforms such as iTunes. Radiohead's drummer, Phil Selway, released two solo albums (*Familial* in 2010 and *Weatherhouse* in 2014), both on CD and as paid digital downloads. Although members of the band have concentrated on niche markets, they have not abandoned conventional distribution strategies. As rights holder of their previous work, EMI released the band's back catalogue in December 2007 as a box set containing the six earlier albums, and then a 'best of' in 2008.

In his very measured article, Morrow concludes that Radiohead are 'at the forefront of a movement that is helping to sink [the "old ship"]' (2009, p. 174). In hindsight, however, this seems to have been a one-off salvo. It is likely that the release of *In Rainbows* was primarily motivated by Radiohead's conflict with EMI.

The Radiohead initiative demonstrates two things. The first is that attempts by industry creative elites to redefine models of digital music distribution along these lines have mostly remained just that: attempts. Radiohead have not pursued the 'pay-what-you-want' distribution model. Their eighth and ninth albums were released in more traditional ways. As with *In Rainbows* (2007), *The King of Limbs* (2011) and *A Moon Shaped Pool* (2016) were first released as digital downloads, before being released on CD and vinyl disc. However, these two albums following on from *In Rainbows* were released at a set price. *The King of Limbs* could be pur-

chased as MP3 files for £6, \$9 or €7, while *A Moon Shaped Pool* is sold for £9, \$11 or €11.50. Fans are no longer invited to set their own price. Instead, the gradual release of the albums on different formats assures the band of the continuing interest of the fans. Indeed, the CDs and vinyl discs of the albums are accompanied by their own artwork, enhancing their desirability to fans and collectors.

Secondly, there was a kind of amnesiac exceptionalism about this case: ‘pay-what-you-want’ or ‘free’ digital music was presented as ‘game-changing’, (only) where the band involved were themselves already renowned (a renown enhanced through the publicity that the release garnered). The previous history of netlabels distributing music freely online, and indeed the longer history of ‘amateur’ music recordings distributed without remuneration in digital (and analogue) forms, simply disappeared from view.

The story is canonical to us because it encapsulates dominant ways of thinking about artists and labels, technologies and consumers: technology democratises price signalling, bypassing the rent-seeking broker (in this case, labels like EMI). Artists and fans establish a ‘direct’ relation: the ‘new’ technology permits the return of an ‘old’ patronage system. In telling the story the artists are the vanguard—the ‘pay-what-you-want’ experiment confirms at a technological, business and economic level what is already said about them at the aesthetic level. More cynically, it is worth entertaining the possibility that the brief endorsement of ‘free’ on the part of major industry players was temporally bounded and served in a sense to familiarise broader markets with the acceptability of downloadable music recordings in digital formats.

8.1.2 Oversteps

The audience for digital music is the focus of the second story we present. Just as the musician–fan relation is re-imagined in discourses featuring digital music, fan–fan relations are similarly transformed. Audiences are often presented in the literature on this topic as devoted enthusiasts, grouping together in ‘online communities’ to share information and resources (see Baym 2007; Beer 2008; Kibby 2000; O’Reilly and Doherty 2006 for representative examples). In this research, digital music is commonly depicted as the medium of sociability and exchange for fans, often in a celebratory tone (Potts 2012), and occasionally with a degree of scepticism (Spracklen 2014). Situations arise, however, in which these enthusi-

asts or fans engage in online discussions of a more challenging form (for example, Gorton and Garde-Hansen 2013). We turn here to an instance of an online fan cacophony, produced around a leaked IDM ('intelligent dance music') album.

Autechre's tenth album, *Oversteps*, was scheduled for release on 23 March 2010. However, as is now common, it 'leaked', becoming available online around two months before its official release. The *Oversteps* leak was notable, however, in that two different illicit versions of the album entered circulation: one 'fake' (the music of others, tagged as Autechre) and one genuine (the actual *Oversteps* album that was shortly released). Confusion over the authenticity of the leaks ensued, exacerbated by the experimental nature of Autechre's music, and awareness that the band had themselves released 'fake leaks' previously. In this context, we turn to online discussion among fans, conducted on the music social network Last.fm in early 2010.

The collection of reactions from Autechre fans includes some questions regarding the authenticity of the leak, but these are generally overshadowed by assertions best understood as displays of subcultural capital. The sequence commences with these two turns:

How many of you got fooled by the fakes? (F1)

I have a feeling—no, I am confident—that a true Autechre listener/devotee, just like your humble narrator, will recognize at once if the leak is not fake. (F2)

The first leak was in late January, the work of a band called Altered:Carbon.¹ A friend of that band deliberately shared their album online labelled as Autechre's *Oversteps*: '[They] shared the file for one day and it went mental, if just a bit hilarious' (Fat Roland 2010). The second, authentic leak was posted online on 8 February. The fans dismissing all the leaks in our sample were thus equally rejecting the authentic version of *Oversteps*, despite their professed expertise on the band.

Rather than working out how to determine the actual *Oversteps*, or investigating the source of the leaks, this online communication was dominated by claims to specialised knowledge about Autechre, and attacks on 'posers' for privileging a band rather than deploying objective criteria of musical quality:

Anyone in the Autechre fanbase who knows and loves the work of Autechre will know straight away from hearing any of the 'fake' tracks that this is a

tongue-in-cheek prank aimed at the fanboys and in no way is aimed at taking anticipation off of the release of *Oversteps*. (F3)

And the next contribution, from a fourth fan:

I didn't even notice the fakes were on the top charts for the last week. I thought Autechre's fans weren't retards, but this confirms that they are. It's not like their style is replicable. Ah well, maybe they'll learn with the next batch of fakes ... which will be the what, the fourth album with fakes. (F4)

Nancy Baym argues that digital music involves 'the entry of many new kinds of players' (2010, p. 179), who voluntarily engage in promotional work for their favourite artists (see Burnett and Baym 2008). With *Oversteps*, the online turmoil certainly contributed to the buzz around the release, to the extent that it reconfigured 'the relations between performers and their audiences' (Beer 2008, p. 233). Autechre's label, WARP, precipitated the release of *Oversteps* due to the leaks and the ensuing confusion.

The literature on online music communities highlights the ability of these groupings to collaborate to achieve particular goals, as is clear in Baym (2010) and Beer (2008). In Kibby's study of John Prine's forum (2000), individuals with similar tastes mostly utilise online space harmoniously for sharing information. The *Oversteps* leak discussions, however, highlight elitism, confusion and conflict on the part of fans (independently of the roles played by those involved in 'pre-releasing'). They are marked especially by the competitive logic of subcultural distinction, with fans engaging in 'cooler-than-thou' contests regarding who is the most expert listener.

Digital music here is the source of uncertainty and antagonism rather than community and togetherness. This kind of adversarial interaction is not new, and should not be glossed as everyday rough-and-tumble: it is notable particularly for its exclusionary effects along gendered lines (Coates 1998). In this example, therefore, digital music presents itself as multiple and polyvalent, creating unpredictable and volatile forms of interaction among fans and other players.

8.1.3 *Lisztomania*

Our third example involves a more formalised adversariality. In 2009, the indie band Phoenix released an album, *Wolfgang Amadeus Phoenix*, featuring a song titled 'Lisztomania'. In the same year, a YouTube user named

‘avoidantconsumer’ set the song to an edited selection of dance scenes from the 1980s films *The Breakfast Club*, *Pretty in Pink*, *Mannequin* and *Footloose*, and uploaded the resulting ‘mashup’ clip. A number of different groups of people in various locations (including New York, Manila, San Francisco, Brisbane, Madrid, Boston, Rome, Winnipeg and Rio) then produced and shared ‘copycat’ tribute videos, of themselves dancing in similar styles to the song.

This can be understood as viral marketing: attention economy resources are crowdsourced by ‘prosumer’ fans (Ritzer and Jurgenson 2010; Toffler 1980). Voluntary or ‘free’ labour conducted by audiences generates value, although how this value is rendered in economic terms is usually obscure. This perspective on such practices is representative of a critical position common among researchers interested in social media and inspired by the academic left (see Coté and Pybus 2007; Fuchs 2015). Digital leisure is understood as immaterial labour, incorporated into the processes of capital accumulation.

Alternatively, one can consider this as an indicator of how technology emancipates audiences to engage with and share culture creatively, so that (in a slight refrain of the Radiohead and Autechre stories) the relations between the musician and the audience are reconstituted and redeemed. The agential audience appropriates cultural commodities, reconfiguring them as communicative and community-building resources. For the former perspective, the political economy of media content and the (often opaque) circulation of economic value are foregrounded. Significatory and sharing practices around the cultural text and the sociable pleasures to be derived from them are in focus for the latter.

Professor Lawrence Lessig, a distinguished copyright and political reform activist and academic based at Harvard Law School, produced an argument along the latter lines about the Lisztomania phenomenon at a presentation in Seoul in 2010. Lessig is a co-founder of Creative Commons, and ran briefly as a 2016 US Presidential candidate. Across a number of volumes (1999, 2004, 2008), he has argued that the sociability of contemporary digital media practices is at odds with draconian copyright regimes: we live in a ‘read/write’ culture that is artificially and unjustly impeded by restrictive ‘read-only’ copyright law, formulated to protect the intellectual property revenues of powerful rights holders.

In his Seoul presentation, titled ‘Open’, Lessig described the Lisztomania fan videos as examples of ‘call and response’, to illustrate his argument that technology gives voice to creativity. In addition to the claim

that the Lisztomania videos and artefacts like them should be understood as innovative creative practices, Lessig also makes arguments propounding free speech and economic benefits of user-generated online content. The Seoul lecture was recorded, and this recording was also uploaded to YouTube.

Phoenix are represented in Australia and New Zealand by the Melbourne label Liberation Music. Using YouTube's automated Content ID system, Liberation Music identified in Lessig's presentation an infringing use of their audio and issued a 'copyright strike' notice, requiring YouTube to take down the video. This was an entirely automated process: no human (at YouTube or at Liberation Music) checked the audio or the context in which it was played in Lessig's YouTube video. Lessig responded by filing suit, asserting his rights to 'fair use' or 'fair dealing' under US and Australian law. Liberation Music then threatened to sue for copyright infringement. With representation from the Electronic Frontier Foundation (perhaps the foremost non-profit digital liberties advocacy group) and Jones Day (one of the largest law firms globally and the second largest in the USA), Lessig challenged the case and settled it out of court. Under the conditions of the settlement, Liberation Music gave Lessig an undisclosed sum in damages, which he donated to the EFF.

Following the case, Lessig said:

Too often, copyright is used as an excuse to silence legitimate speech. I've been fighting against that kind of abuse for many years, and I knew I had to stand up for fair use here as well. Hopefully this lawsuit and this settlement will send a message to copyright owners to adopt fair takedown practices—or face the consequences. (Electronic Frontier Foundation [2014](#))

The band whose music was involved, Phoenix, also issued a statement, which concluded:

We absolutely support fair use of our music,
And we can only encourage a new copyright policy that protects fair use
as much as every creators' legitimate interests. (in DeVille [2014](#))

There are several intersecting features of this story to which we want to draw attention at this juncture.

It is possible that there is something disproportionate and perhaps morally peculiar about Lessig pursuing this label through the courts, a strange

inversion of the litigious heavy-handedness for which the Recording Industry Association of America was criticised throughout the 2000s. Lessig has a great deal of legal, intellectual and media capital at his disposal. For those interested in copyright and technology policy and reform, this raises questions about strategy.

However, there is also the action to which Lessig was responding. The label appears to have acted in an ostensibly aggressive but actually quite blind way, contrary to the behaviour of the fans and the wishes of the band. The initial takedown request seems in essence to have been ‘spamigation’, a wholly automated technico-legal event triggered and implemented by software systems. Lessig received and acted on a calling card issued by the mechanism that undergirds the forms of ‘free expression’ that he suggests are enabled by digital media. He wanted to make an example of this case.

At the time, the policy at Liberation Music was to issue copyright strikes solely on the basis of information provided by YouTube’s Content ID. It is impossible to know how many copyright strikes so issued go uncontested. However, given the phenomenon that Lessig was addressing, in the case of Lisztomania the delegation does not seem to have been especially effective.

Alongside the hybrid technico-legal process that Lessig encountered, there is the role of Lessig himself as a figure in the drama. Celebrity academic commentators such as Lessig are active agents, shaping and acting in the field in which they claim expertise. There is, in this instance, no neutral ‘outside’: making an observation about the social and cultural uses of music through the media of its transition involves the possibility of being drawn into the apparatus by which it is regulated and monetised.

In the case of this example—as with the two previous ones—the range of individuals involved act on what the object ‘digital music’ is and what it means. This object is thus constituted through the range of specific interests that these actors articulate, such that it appears in a certain light and interpretation. Nonetheless, digital music conveys enough *shared* meaning to represent a viably unitary *thing*, a discursive ‘leitmotiv’ (Prior 2010).

8.2 WHAT IS ‘DIGITAL MUSIC’ THE NAME OF?

We present these stories here not because we think that the ‘facts’ warrant clarification (or that we are in any position to offer it!), nor because we wish to temper how discussion regarding these events was conducted in some way. These stories are relevant to us because of the different ways in which digital music is presented within and across them. Thinking with

these stories facilitates a grasp of digital music as a boundary object. The stories are such as to enable reflection on the disjunctive sense that people do not quite seem to be talking about the ‘same thing’, and yet nonetheless are able to mobilise relatively liquid conceptual and moral elements into formulations that momentarily ‘freeze’ digital music as tableaux for particular kinds of social drama.

Consider for example how actions are presented in these stories: what forms of action are deemed notable, and which actions evidence capacities adhering to particular actors in particular roles. In the Radiohead story, the artist is figured as agent, using technology to give the otherwise passive audience the ‘right’ to act—that is, to determine musical value in monetary terms. In the Autechre story, the audience is a combative Babel, stirred to confusion and argument by proliferating leaks from shadowy sources, such that the label is forced to react. In the Lisztomania story, again the ‘active audience’ appears, this time ‘talking’ more among and about themselves (and also through other media texts and forms) than to, or about, the band. There are therefore within such stories permutations of possible actors and effectual relations between them, such as band -> audience, audience -> (leak intermediary) -> band’s label, audience -> audience. In the strange intervention that is the Lessig story, the relations are more complex, perhaps minimally commentator -> platform copyright surveillance machine -> label -> court.

In these narratives, digital music serves as a medium, catalyst or trigger, around which well-established relationships are reconstituted, ostensibly predictable relationships are shown to be otherwise, and new relationships and obligations are imposed and contested.

These stories were widely reported, and there are many others like them. The ongoing circulation of such stories seems to have a sort of ‘what if’ flavour, as though the stories were themselves the means of testing out appropriate logics for dealing with and conceptualising digital music as a moral, aesthetic and economic entity. What if the band just gave the music away and you could pay what you thought it was worth? What if the fans, in the glut of music, were no longer able to tell what was really the music (of the band) they liked? What if the lawyer (counter-)sued the label? Digital music seems to find itself in, and invite reflection on, heretofore unimagined scenarios, where the world appears upside-down. It is thus through such stories that we understand, express and explore the thing called ‘digital music’, and thereby also produce the ‘normal’ backdrop to which it is the novel exception.

Digital music is both constitutive of, and constituted by, a range of discursive explorations aimed at cohering an object about which political claims can be made. It is a ‘foundational mechanism’ (McSherry 2001), embodying the shared space between all users and commentators, while simultaneously segmenting smaller social worlds (Star 2010). In what follows, therefore, we further situate digital music as a *boundary object*.

Digital music is really only sensible in these stories insofar as it is tied to or bundled with other kinds of recognisable players, entities or technologies (copyright-identifying machine, piratical hyper-consumption, ‘champion of fair use and free speech rights’, artistic entrepreneurialism and so on). The short twentieth century history of popular music, with established formats, major labels, economic arrangements and norms of consumer behaviour, is continually and tacitly invoked as though immutable and eternal, such that this apparently abrupt departure is always startling and unnerving.

The familiar narratives of ‘digital music’, on close inspection, are therefore in their iteration usually a proxy for something else or some other things. There are various permutations of this.

Firstly, often more than one type of ‘thing’ is being discussed, as though it were a unity. Sometimes it is a technical process, sometimes a market process, sometimes something aesthetic or artistic. Even when it seems that the ‘same thing’ is being described, it is sometimes handled inconsistently. For example, the conversation can explore experiments in revenue generation, where at other times it seems to be about a horizontalisation of social relationships between producers and consumers. Sometimes we address what is legally possible, at other times moral obligations, without reference to how such obligations and possibilities are afforded or occluded by technologies and code. Sometimes media carriers and formats are described as though inert, at other times they are discussed as though they shape social, cultural and economic practices around them in a deterministic way. Sometimes there is a discussion of copyright and the possibility of chilling effects on free speech, at other times the same processes are gathered under the sign of exploited fan labour.

Secondly, and more fundamentally, this talk fulfils particular objectives, in that digital music is tethered to, or bundled into particular configurations. This is because, to borrow the words of Stiegler (2015, p. 193), digital music is not ‘just data but *functions*’ (emphasis in original). It is inevitably and immediately described in terms of its relationships to something else (the ‘moral rights’ of the composer, for example) in order to

accomplish specific kinds of results. For example, ‘digital music’ *does work* around the problems of creative labour, and whether or not musical creativity is something that requires or entails economic returns or investments. If so, when do they kick in, under what circumstances and by which mechanisms? Is (digital) music (always, first, only) a commodity?

Thirdly, digital music is encountered at boundaries, used to indicate the borders between social worlds, whereby people on one side or another articulate how they think social relationships between groups should be conducted. Different actors or groups defend positions in relation to how musicians should be paid for (the product of) their labour, the extent to which established music industry bodies are under threat from online exchanges, or how it might be inappropriate to regulate communicative practices online. Digital music is in such instances the means to foreground particular stances, on what we might call the ‘border issues’ through which the object itself is crystallised.

Digital music is therefore always, actively and continuously attached to configurations that make visible particular ‘dimensions’ of some social practice or discourse; the phenomena of digital music are mobilised within and out of the context of specific milieux, be they legal, journalistic, creative or what have you. These different social worlds elaborate different priorities and imaginings of what morally appropriate social relationships and arrangements look like in mediated contexts with low data reproduction and transmission costs. Our relative degrees of familiarity with the framings that come out of and characterise these worlds are what make these narratives familiar, intelligible and normative to us. Some of the representatives of these social worlds are hoping to ‘fix’ digital music so that predictable and consistent actions can be carried out with respect to it (for example, paying for it in a particular way, or not).

8.3 ONTOLOGICAL POLITICS FOR DIGITAL MUSIC

Our aim is not to dismiss the legal, social, technological and material aspects of digital music, but rather to highlight the ways in which each aspect of it is constructed as representing the whole, although only presenting one of many facets. What appears to be the ‘same thing’ is in fact heterogeneous, prismatic. McSherry writes: ‘A boundary object holds different meanings in different social worlds, yet it is imbued with enough shared meaning to facilitate its translation across those worlds’ (2001, p. 69). Consequently, as a kind of arrangement, boundary objects ‘allow

different groups to work together without consensus' (Star 2010, p. 602). Aside from the fundamental differences in interpretations and ideologies, users of and commentators on digital music tend to discuss distinct topics, depending on the emphasis mobilised in the specific context (copyright, authorship, distribution mode and so on). These 'other elements' accreted to digital music act as entry points to the boundary object.

In Star and Griesemer (1989), one of the earliest occurrences of the boundary object concept, the objects of interest '*originate* in, and continue to inhabit, different worlds' (p. 392). They 'inhabit several intersecting social worlds *and* satisfy the informational requirements of each of them' (p. 393; emphases in original). Moreover, 'boundary objects do not merely cross borders; rather, they make them' (McSherry 2001, p. 70). Borders (spaces that are here and not-here) are constructed and brought to bear through the interpretive permeability of boundary objects (Bowker and Star 1999; Star 2010; Star and Griesemer 1989). The stories we present in the first section of this chapter make visible the borders between different social worlds that tessellate the digital music boundary object.

Digital music is thus a kind of resource, a locus of interest around which competing discourses attempt to exceed their local parameters. Boundary objects 'are entities at the borders of discourses, that is, entities which set up borders in themselves, but do not presuppose that a border is also an enclosure' (Strathern 2004, p. 46). Digital music is perceived as a stable (albeit somewhat blurry) thing precisely because it is ontologically underdetermined in this productive way. It anchors specific meanings in a given socio-cultural context. As Philip puts it: 'boundary objects shine not primarily as themselves, but as a means of translation' (2014, p. 165).

Of course, to present such an argument is also to affix digital music within a particular way of talking; to foreground certain aspects to particular ends. Our interest in the description we have been developing is pragmatic. Specifically, it is in how the sorts of stories we have discussed are representative of particular aspects of the digital music boundary object and constitutive of it, and how, in turn, this object is significant, because it tells us something compelling about dominant modes of understanding and situating *music* in the present conjuncture.

It is worth elaborating the backdrop to our own position at this point: this argument can be read reflexively insofar as it elicits a particular interpretive scheme by situating digital music in a particular context. We have used

the concept of the boundary object as a heuristic device; and we have done so in order to draw attention to some of the tacit assumptions associated with and consequences following on from how digital music is conceptualised and discussed in popular discourse. Borrowing from Law, we could say that this approach itself has a 'hinterland' (2004, pp. 27–31). It refers to the long histories of political and social thought and social research, according to which music plays a fundamental role in the moral, social and political order. For Plato, Aristotle, Rousseau, Nietzsche, Weber, Adorno, Schütz, Attali, Becker and Bourdieu, among others, music is not merely representative or expressive of social orders: it is constitutive of them. Within this tradition, music is understood as a communicative form: sound and silence ranged across time, space and bodies, and, as such, fundamental to the organisation of social experience. These histories highlight the ground for and inform the contemporary salience of digital music and discussions about it.

Music (and therefore how it is thought of and spoken of) is inherently political because of the vital role the form plays in sociality, community and as the ground for a public sphere of identity articulation. Just as digital music is heterogeneous, so music is not 'blank': it matters what music, where, why and how. This is the feature of the digital music boundary object that we wish to highlight: that the central nexus for discursive work hinges on features of music as a specific communicative mode, and yet these very features of music are oddly 'suppressed', occluded and rendered inert in the production of its digital iteration.

This is not simply an accident of format: music crystallising on vinyl as an auratic fetish, and then liquidating or disintegrating into virtuality, becoming 'promiscuous' and proliferating across networks. Music is not autonomous from the means of its production and transmission. Rather, from the perspective of the critical tradition towards which we are gesturing, there are particularities about music (as opposed to other aesthetic or cultural domains), as a form of cultural expression and as a mode of sociality, which afford it this remarkable role as a carrier of affective resonance, anxiety and excitement when it is modified by the term 'digital'. The first term in 'digital music' tends to subsume the 'musicness' of the object.

As 'digital music', the specificities of music become largely incidental: it is rendered a vacuous content, represented inside-out as a vessel or conduit, so that any music is digital music, and all that is of significance about it resides in the sign of its now being digital.

Moreover, this is not only indicative of rather impoverished accounts of music, which overlook the empirical complexity of what people actually do through and with music (including producing just these sorts of accounts). What the digital music boundary object ordinarily serves to emphasise is that music, in its digital iteration, must be understood first and foremost as semiotically and socially hollow, and significant primarily as an excessive or perverse commodity, which variously escapes or sediments logics of fungibility and financial gain. The heated talk about digital music keeps it in the foreground, and yet the political and social implications and uses of music are subsumed under the preoccupation with the riddle of monetary value.

The social and cultural complexity of music is thereby rendered static and immobile. Yet digital musics move around networks, and people do things with them, are affected by them and use them actively in an improbably wide and locally embedded range of ways. There is an odd kind of sedimentation in play, by which music is ‘pinned’ as primarily a set of problems, articulated in various ways, around revenue, rights, property, access and so on. As our examples show (and as the critical tradition would suggest), the unsettled relationship between the ethical and the economic is a significant fissure in the digital music boundary object.

This tends to collapse the history of music and the diversity and range of music, as if ‘music’ was one thing or it was really only an incidental matter what kind of music it was exactly, or where it came from or how it came into circulation, or what kinds of affects and uses it came to be associated with. Digital music continues the epistemological and discursive approaches to music associated with prior formats and the standard emphasis on the recording as an inert ‘thing’. Yet the scale of the digital adds layers of complexity and uncertainty with respect to how it is to be framed.

There is thus a paradox: while the digital music boundary object accretes from diverse perspectives and instantiates the borderlands between the social worlds that these perspectives represent, the forms of music as the terrain by which this becomes possible are flattened. There are numerous genres—and indeed parts of the world—where arguments such as those that arose around Radiohead, Autechre or Phoenix would be quite bizarre or even unintelligible. The discursive dynamics articulated through digital music as described here, although heterogeneous and dispersed, culminate in this partial reification of music, seemingly imposing totalising logics for value, participation, exploitation and so on.

What is enacted therefore with digital music as commonly discussed is a very narrow way of conceptualising music and its social roles and implications: a kind of market-curatorial orientation that reveals quite a specific (quite Western) understanding of what is to happen with music. There are potentials to music that are lost here. Not every Internet user is Radiohead, *Altered:Carbon* or Lawrence Lessig. Not everyone gets to ‘make a point’ online about what digital music should resemble, or how it ought to change. Expressions of social hierarchy and political power are enforced, not disrupted, in the era of digital music, diffused across the boundaries and normalised. This is why once we actually scrutinise the discussion, and in fact take music out of it, we get a clearer sense of what we are talking about (people defending and disputing interests and ideas, forming working agreements, accepting or interrogating technical processes and so on).

Our contention, to bring the argument here to a conclusion, is that music is singularly positioned among cultural forms to function as a framing device for constituting digitisation as a social and cultural fact: one that should be understood, primarily, in terms of contradictory and incompatible economic effects in a hybrid technico-legal apparatus. Understood as a boundary object, digital music affords discussion on a number of topics, perhaps most notably among them the contestability of adequate recompense for creative labour, intellectual property rights, freedom of expression, corporate surveillance, the labour of consumption, the possibilities of online community, the limits of exchange and the gift. These are the kinds of things people talk about when they talk about digital music, and one of the under-emphasised reasons why digital music affords these kinds of conversations is because music is itself, among other things, a means of imagining the social, and also imagining a social more equitable, desirable and pleasurable than that presently encountered. Because music is a vital means of organising and articulating the social, talking about digital music, however elliptically or cryptically, is a way of talking about the future, and more specifically talking about what building a future worth having would entail.

NOTE

1. *Altered:Carbon* share their name with Richard K. Morgan’s 2002 cyberpunk science fiction novel, set in a dystopian future where, following death, human personalities can be downloaded into new bodies. We are indebted to Chris Moore for bringing this to our attention, and to Tanja Dreher for invaluable comments on an earlier version of this chapter.

BIBLIOGRAPHY

- Adorno, T. (2002). *Essays on music*. Berkeley: University of California Press.
- Attali, J. (1985). *Noise: The political economy of music*. London: University of Minnesota Press.
- Baym, N. K. (2007). The new shape of online community: The example of Swedish independent music fandom. *First Monday*, 12, 8. doi:10.5210/fm.v12i8.1978. Retrieved from <http://firstmonday.org/article/view/1978/1853>.
- Baym, N. K. (2010). Rethinking the music industry. *Popular Communication*, 8(3), 177–180.
- Beer, D. (2008). Making friends with Jarvis Cocker: Music culture in the context of Web 2.0. *Cultural Sociology*, 2(2), 222–241.
- Bowker, G., & Star, S. (1999). *Sorting things out: Classification and its consequences*. Cambridge, MA: MIT Press.
- Burnett, R., & Baym, N. (2008). *The Swedish model: Control vs. collaboration in the Web 2.0 Music Industry*, at International Communication Association Conference (ICA), Montreal, Canada.
- Coates, N. (1998). Can't we just talk about music?: Rock and gender on the Internet. In T. Swiss, J. Sloop, & A. Herman (Eds.), *Mapping the beat: Popular music and contemporary theory*. Oxford: Blackwell.
- Coté, M., & Pybus, J. (2007). Learning to immaterial labour 2.0: MySpace and social networks. *Ephemera: Theory and Politics in Organization*, 7(1), 88–106.
- DeVile, C. (2014, February 28). Phoenix side with Lawrence Lessig on 'Lisztomania' fair use Lawsuit. *Stereogum*. Retrieved October 30, 2015, from <http://www.stereogum.com/1667378/phoenix-side-with-lawrence-lessig-on-lisztomania-fair-use-lawsuit/news/>
- Electronic Frontier Foundation. (2014). Lawrence Lessig settles fair use Lawsuit over phoenix music snippets. Retrieved October 31, 2015, from <https://www.eff.org/press/releases/lawrence-lessig-settles-fair-use-lawsuit-over-phoenix-music-snippets>
- Fat Roland. (2010, February 24). Autechre's new album oversteps gets a shock release. Retrieved September 23, 2015, from <http://fatroland.blogspot.co.uk/2010/02/autechres-new-album-oversteps-gets.html>
- Fuchs, C. (2015). Dallas Smythe and digital labor. In R. Maxwell (Ed.), *Routledge companion to labor and media*. New York: Routledge.
- Gorton, K., & Garde-Hansen, J. (2013). From old media whore to new media troll: The online negotiation of Madonna's ageing body. *Feminist Media Studies*, 13(2), 288–302.
- Kibby, M. D. (2000). Home on the page: A virtual place of music community. *Popular Music*, 19(1), 91–100.
- Law, J. (2004). *After method: Mess in social science research*. New York: Routledge.
- Lessig, L. (1999). *Code and other laws of cyberspace*. New York: Basic Books.

- Lessig, L. (2004). *Free culture: How big media uses technology and the law to lock down culture and control creativity*. New York: Penguin.
- Lessig, L. (2008). *Remix: Making art and commerce thrive in the hybrid economy*. London: Bloomsbury Academic.
- McSherry, C. (2001). *Who owns academic work?: Battling for control of intellectual property*. Cambridge, MA: Harvard University Press.
- Morrow, G. (2009). Radiohead's managerial creativity. *Convergence: The International Journal of Research into New Media Technologies*, 15(2), 161–176.
- O'Reilly, D., & Doherty, K. (2006). Music b(r)ands online and constructing community: The case of New Model Army. In M. Ayers (Ed.), *Cybersounds: Essays on virtual music culture* (pp. 137–160). New York: Peter Lang.
- Philip, K. (2014). Keep Copyin' in the free world? Genealogies of the postcolonial pirate figure. In L. Eckstein & A. Schwarz (Eds.), *Postcolonial piracy. Media distribution and cultural production in the global south*. London: Bloomsbury.
- Potts, L. (2012). Amanda Palmer and the #LOFNOTC: How online fan participation is rewriting music labels. *Participations*, 9(2), 360–382.
- Prior, N. (2010). The rise of the New Amateurs: Popular music, digital technology and the fate of cultural production. In J. Hall, L. Grindstaff, & M. Lo (Eds.), *Handbook of cultural sociology* (pp. 398–407). London: Routledge.
- Spracklen, K. (2014). There is (almost) no alternative: The slow 'heat death' of music subcultures and the instrumentalization of contemporary leisure. *Annals of Leisure Research*, 17(3), 252–266.
- Star, S. (2010). This is not a boundary object: Reflections on the origin of a concept. *Science, Technology and Human Values*, 35(5), 601–617.
- Star, S., & Griesemer, J. (1989). Institutional ecology, translations and boundary objects: Amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907–39. *Social Studies of Science*, 19(3), 387–420.
- Stiegler, B. (2015). *States of shock: Stupidity and knowledge in the 21st century*. Cambridge: Polity.
- Strathern, M. (2004). *Commons and borderlands: Working papers on interdisciplinarity, accountability and the flow of knowledge*. Wantage: Sean Kingston Publishing.
- Ritzer, G., & Jurgenson, N. (2010). Production, consumption, prosumption: The nature of capitalism in the age of the digital 'prosumer'. *Journal of Consumer Culture*, 10(1), 13–36.
- Toffler, A. (1980). *The third wave*. New York: Morrow.
- Weber, M. (1958 [1921]). *The rational and social foundations of music*. Carbondale: Southern Illinois University Press.

‘A Step Back to the Dark Ages of the Music Industry’: Democratisation of Record Production and Discourses on Spotify in *Kuka Mitä Häh?*

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The end of the first decade of the new millennium saw the introduction and stabilisation of the popularity of online on-demand music streaming services, of which YouTube, acquired by Google in 2006, and Spotify are the most popular, in Finland and also globally (SoundCloud notwithstanding, as it was not licensed at the time of this study). These services have allegedly challenged the unauthorised sharing of music files in popularity. Although they use various operating principles, what they have in common is that they offer free access to their vast collections of digital music, that are licensed from the record producers.¹

Meanwhile, as widely reported in the media, many artists and record labels have criticised the small remuneration received from these services. In addition, certain qualities of the digital music market, such as

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‘economies of scale’, are speculated to advantage large players (Galuszka 2015; Lanier 2010; Mulligan 2013; Strachan 2007; see Lindvall 2011, 2014a, 2014c) (see Chap. 12 also). This kind of asymmetry in the use of power undermines the utopia of more democratic record production online, as evinced by recent concepts such as ‘The Long Tail’ (Anderson 2004).

This chapter seeks to address the power relations of the digitising recording industries by focusing on the discourse on Spotify in the Facebook discussion group *Kuka Mitä Häh?*, the name of which translates roughly to ‘Who? What? Huh?’ and is borrowed from an old Finnish hit. The group was originally a ‘think tank’ established by the state-owned Finnish Broadcasting Company YLE to inspire conversation about how to support Finnish popular music (Haarma and Raitanen 2011). In March 2011, the think tank extended into Facebook as an open discussion group. Many Finnish music professionals, amateurs and copyright activists have joined in the meandering conversation in the group, creating various conflicting discourses on the recent changes in the power relations of the Finnish music industries.

In this chapter, I examine how these contrasting subject positions form, and how they attempt to influence discourse in light of the theory on discourse and hegemony by Ernesto Laclau and Chantal Mouffe (2001). Entrepreneurs such as artists and small-label owners are concerned about their position in the emerging streaming environment. While both demand their fair share of royalties, the latter in particular consider Spotify’s licensing practices to benefit the economies of scale of larger operators, especially ‘the majors’—the handful of the largest record producers in the world that have dominated the market for decades. There are also contrary views in the group, especially among the representatives of the majors, according to whom Spotify brings growth and all artists and labels will benefit from the service in the long term. In the context of the power relations of the streaming economy, behind this attempt to gain consent a market practice can be conceived, where the growing uncertainty of investment is shifted from large companies to small entrepreneurs. A possible transcending of the juxtaposition of small and large actors—the utopia of a more democratic digital market—is undermined by the hegemony of global corporations, which has grown with the streaming services in the local recording market.

9.1 THE ROAD TO STREAMING AND THE DIGITAL BALANCING OF THE INDUSTRY

The clearest context for the discussions in *Kuka Mitä Häh?* is the ever-growing implementation of the Internet in the production, distribution and consumption of music or, to put it simply, music culture. This shift has been documented and examined quite well in many music industry-related studies (Collins and Young 2014; Wikström 2009), including chapters in this collection (Chaps. 4, 10, and 12). From the viewpoint of this chapter, the shift could be summarised under the following premise: through the continuing decline in the sales of compact discs and the rise of file sharing and digital downloads, digital distribution has led to online streaming services, of which YouTube and Spotify are the most popular globally licensed on-demand services currently. They—especially the latter—are celebrated as converting file sharers to using authorised services that can distribute remuneration to rights holders (IFPI DMR 2014, p. 35; Wikström 2009, pp. 173–176). In the process, there has been wide interest in the democratising potential of information networks on music production that would contribute to the decentralisation of production and distribution, which had slowly concentrated to the majors, at the moment only three corporations, Sony, Warner and Universal (see Galuszka 2015). Although the concept of ‘democracy’ is not generally used in a very consistent manner (see Hesmondhalgh 1998), here it is related to balancing power relations, implying that the conditions of production and distribution of music would be less dependent on status in the industry. This discourse has evolved specifically around the notions of *disintermediation* or *The Long Tail*.

In the early utopia, digital recordings would be distributed on networks, the possibilities of which inspired theories of disintermediation in the late 1990s (Jones 2002). According to the concept, digital networks could afford a more direct link between the producer (or artist) and the consumer of music, thus bypassing intermediaries such as retailers, distributors or record labels, on whose services artists or record producers have been dependent to get their music to a mass audience. Simultaneously, a great deal of power (artistic as well as economic) would be redistributed from industrial producers to artists or small-scale producers. This prospect materialised with the advent of file sharing and the first service to implement it on a large scale, Napster (Jones 2002; see Chap. 4). Recent scholars of the music industries such as Patryk Galuszka (2015)

and Sherman Young and Steve Collins (2010) discuss disintermediation in depth. Artists and small-scale producers were envisioned to use the Internet and new online services in order to directly distribute, sell and promote their work, thus displacing the traditional intermediaries of the industry. Nevertheless, these online tools have often been provided by a commercial enterprise that charges for its services, such as a media platform, digital distributor or payment technology, or have been inaccessible to small actors (Galuszka 2015; Young and Collins 2010). Indeed, the most convincing studies (Jones 2002; Young and Collins 2010) suggest ‘re-intermediation’, whereby a new body of intermediaries specialising in e-commerce replaces the old ones (cf. Collins and Young 2014, pp. 63–77, pp. 109–110, p. 133; Galuszka 2015; Wikström 2009).

Another concept related to the issue of decentralisation of production is ‘The Long Tail’, coined by the editor of *Wired* magazine, Chris Anderson (2004). It illustrates a trend where vast selections of niche products are sold online. The replacement of physical stores and their limited storing capabilities by online commerce gives birth to virtually unlimited selections, which increases—or more accurately, meets—the demand for niche products. According to Anderson (2004), online commerce would thus improve the market for less popular products, in other words The Long Tail, when compared to the previous market that was concentrated on selling the most profitable, most popular hits (‘the Short Head’).

As with other power-balancing qualities attributed to the Internet, the theory of The Long Tail has engendered a great deal of discussion. Several commentators have noticed that the assumed growth in demand for less popular recordings does not necessarily benefit small producers or artists as much as the major record labels and *aggregators* (Galuszka 2015), which can produce or distribute a wide selection of niche recordings (Strachan 2007; Lanier 2010; Mulligan 2013, 2014). Robert Strachan (2007, p. 260) doubts whether ‘DIY labels and musicians’ ‘as a whole’ have benefited from Internet distribution as much as aggregators. The founding editor of *Wired*, Kevin Kelly (cited in Lanier 2010, p. 89), provides an elaboration on this argument, claiming that The Long Tail works for aggregators and consumers: in the case of artists, it does not raise sales much but adds ‘competition and endless downward pressure on prices’.

Furthermore, the former CEO of Google, Eric Schmidt, claims in an interview (Manyika 2009) that The Long Tail is a relevant business strategy only if there is also ‘the head’—the best-selling hits. Music industry consultant Mark Mulligan recognises the promises that The Long Tail has made about the demand for niche music, but claims that ‘the opposite

is true’ (2014). He argues that the digital age music industry is a ‘dramatically’ more concentrated ‘superstar economy’ than the one before, in which 20% of the most popular artists accounted for 80% of sales (the so-called Pareto law). Mulligan (2014) presents statistical data from 2013 according to which 1% of repertoire accounts for 77% of global revenues (including both streaming and digital downloads). In the light of these findings, Anderson’s famous advice to ‘forget squeezing millions from a few megahits at the top of the charts’ does not convince.

In relation to the democratisation discourse, there has also been a debate for many years regarding the remuneration paid by streaming services (see Marshall 2015). The royalties are often criticised as negligible, especially by artists and small record labels. In addition, the media have speculated that the agreements that the majors have made with these services benefit them disproportionately compared to the artists and songwriters produced by them, as well as the contracts of smaller labels (Lindvall 2009a, 2011; Resnikoff 2014). The representatives of Spotify have responded to this criticism by publishing their general principle on sharing revenues. This has passed some of the pressure onto the labels, which mediate royalties between Spotify and the artists. Additionally, the company has repeatedly promised that as it acquires more users, especially paying subscribers, there are more revenues to be shared with everyone. The company reports on its website that it tripled the amount of royalties paid in 2014, to a billion dollars by June 2015 (Spotify for Artists 2015).

There are additional worries, however. In the ‘pro rata’ model by which Spotify distributes revenues, the more valuable fee of a subscriber is not distributed directly according to the number of plays, but according to the overall share of plays, which also includes streaming of the less valuable, advertisement-funded free use of the service during the subscription term (Maasø 2014; Marshall 2015; see also Ingham 2015a). The model is argued to profit mostly a few top stars (Maasø 2014) or the owners of large catalogues (Marshall 2015). There are also questions regarding the entire sustainability of Spotify (Dredge 2014). While the company has not been able to generate any profit for its shareholders so far, it has justified the losses with its fast global expansion in recent years (Dredge 2014). Ironically, according to some critics (Dredge 2014) the service spends too much on copyrights, a cost that also includes disputed royalties (cf. Wikström 2009, pp. 108–109, p. 175).

Despite the outburst of criticism of The Long Tail or other democratising qualities of the streaming economy during recent years, there are still defenders of the equalising potential of the digital music culture, including scholars (Collins and Young 2014, pp. 63–77, pp. 109–110, p. 133)

and diverse commentators from the music industries (Albini 2014; Caldas 2012; Dredge 2014).

9.2 THE MUSIC INDUSTRIES CONVERSATION GROUP *KUKA MITÄ HÄH?* AS A FORUM FOR DISCURSIVE SUBJECTS

In Finland, these questions of the democratisation of digital music culture have been discussed within the industries mostly online, in the Facebook group *Kuka Mitä Häh?*. From its opening on 2 March 2011, the group ignited conversation especially about new music services, concentrating on Spotify that was at that time growing fast in Finland. It was dubbed ‘The Wailing Wall’ after the bitter comments of many entrepreneurs who were experiencing the recession in the music business. Nevertheless, the group has attracted a large and diverse range of music professionals, amateurs, fans and copyright activists during its existence. It provides an apt source of formal as well as informal first-hand information and experience on streaming from a wide array of representatives of the music industries in Finland.

The number of members in the group has risen steadily, from the dozens of members of the original think tank to 3466 members by 24 January 2014. The group is quite lively, hosting approximately one to two new threads every day. Naturally, this proliferation in discussion is a challenge for collecting and analysing data. Searching the group with the keyword “Spotify” results in 92 threads—of which some include over 300 comments—from the first year 2011 alone; 122 threads in 2012 and 130 in 2013. To harvest out the most relevant data, in addition to “Spotify” I used the keywords “YouTube”, “long tail”, “*pitkä häntä*” and “*häntä*” (‘long tail’ and ‘tail’ in Finnish, respectively). As the fast development of the music industries constantly generates new and continuing discussion in the group, the data for this study is limited to comments published before 1 January 2014. Despite the ongoing development of digital music culture, the topics discussed during the data period are still the main focus of attention.

Although the participants in general form a rather heterogeneous group—despite men being a clear majority—those I refer to here are mostly self-employed music professionals or semi-professionals such as small record-label owners, musicians, journalists and studio engineers. Although the group is public—the messages can be read by any Facebook user—I asked the commentators cited here for their permission to be included in this study. Although they appear to have joined the conversation on behalf of their profession, many of them indicated that they are commenting partly as private persons. Some of the commentators wished

to remain anonymous, which reveals a great deal about the sensitivity of the discussions. As a scholar, I have withdrawn from joining or leading the conversations during the study period, except for a few comments that I posted when I was yet not aware that I was going to research the group discussions. Although there would be much to analyse in any Facebook discussion (such as ‘liking’), this chapter is limited to examining the statements by the participants. The majority of the comments were originally written in Finnish and translated into English by the author.

In interpreting the group discussions, I am drawing on the theory of discourse from Michel Foucault (2002), especially its elaboration by Laclau and Mouffe (2001), who emphasise the agency of the subject in controlling the discourse. They argue that discourses are ‘constituted as an attempt to dominate the field of discursivity’ (2001, p. 112); in other words, to maintain or subvert the *hegemony*² in the field. In this study I analyse how the subject positions constructed in the discourses on Spotify in *Kuka Mitä Häh?* aspire to dominate or shape the very discourse that constructed them.³

9.3 LITTLE STREAMS: DISCOURSES ON STREAMING AND THE DISAPPOINTMENT OF SMALL ACTORS

One of the immediate observations on the conversations about streaming in the group is that there is strong polarisation among the users regarding Spotify. In discussing the political economy of the service, roughly two subject positions are produced within the group. In general, small-scale music professionals do not warmly welcome the streaming economy represented by Spotify, as the distribution of revenues and the promises of The Long Tail are met with confusion and disappointment. These participants compose a discursive position that experiences losing in the current development. There is another, more optimistic position held by ‘the defenders’, whom I describe as ‘winners’ and ‘adapting realists’.

The first position, ‘the losing side’, is occupied by the small-scale end of the music industries, including artists, producers, songwriters, owners of small labels and their sympathisers such as journalists, for whom Spotify royalties are mostly an object of ‘wailing’. Especially bleak comments are made by the representatives of small labels, such as Martti Heikkinen, owner of the small Texicalli Records label and an independent distributor, Töölön musiikkitikku:

(Mysterious and loss-making) Spotify is a system, where indie labels, artists, composers and lyricists make money for the major companies. (Heikkinen 2011a)

As a conclusion one can note, that in the future environment only companies that have huge catalogue will survive. Others disappear silently. ... I am happy that my retirement age is near! (Heikkinen 2011b)

Nick Triani, owner of the small Soliti Music label, posts a similar bitter comment to another thread:

If you are a new artist getting an average royalty rate off your debut album (after break even) then I presume your Spotify revenues are going to be very small. If you are Universal Music and own nearly half the music on the service you're probably laughing all the way to the bank. (Triani 2013a)

As in the media, the key problem for these participants concerns Spotify royalties. The remuneration is considered by the vast majority in the group to be too small, or distributed unfairly to copyright holders. The remuneration policy is experienced as juxtaposing large and small actors, as highlighted by Triani's comment later in another thread on Spotify:

[W]e are approaching a real split between the mainstream (and I include large indies in this) and smaller labels/artists finding their own methods. It's certainly a step back to the dark ages of the music industry that the artist (who has traditionally been treated shabbily) continues to be treated this way. That is unforgivable. (Triani 2013b)

Furthermore, to render the unjustifiable remuneration practices as regressive, Spotify is here related to the long history of miscarriages of justice in the music industry (see Albini 2014; McLeod 2005).

From the 'losing' position the conditions of Spotify are experienced as dividing especially the producers, or this division is eagerly engendered in the discourse. Through the low per-stream remuneration logic of Spotify, the size of the back catalogue—the catalogue of master recording copyrights—becomes the key question for success for the labels: the larger the catalogue of streamed works, the less weight on small per-stream remuneration. Consequently, this is also considered the separating line between the majors and the (small) indie labels, as already claimed here and summarised by a former digital music service entrepreneur, Patrik Lindberg:

We still have to acknowledge the fact that major labels and indie labels are in pretty different situations here [in the streaming economy]. Majors have catalogue, indies don’t have that. (Lindberg 2013)

As the small-scale industry members generally consider ‘the business environment’ of Spotify unhealthy for them, the theories in which digital consumption benefits the niches are also not living up to their promises. An owner of the longstanding small Finnish label Rockadillo Records, Tapio Korjus expresses his disappointment in how Spotify seems to be operating like the physical record business and thus differs from the levelling of sales anticipated by The Long Tail:

In *The Long Tail* Chris Anderson assumed that in digital commerce the situation would differ from [the old-fashioned brick and mortar business] radically. This has unfortunately not at least yet happened with Spotify and iTunes. The hits are hits. (Korjus 2013)

This disappointment of the indie labels is also expressed more widely, but *because* it is precisely The Long Tail that reinforces the hits. Tommi Forsström, former co-owner of the small record label If Society, claims that The Long Tail is very much alive and well, but it

has just been tragically misunderstood. It only advantages those, who have a tail which can be monetized = a big back catalogue = the record labels and publishing companies that have operated for decades and have catalogue so thick that the long tail works. (Forsström 2013a)

However, a small-scale music entrepreneur, who wished to remain anonymous in the study, undermines The Long Tail from the perspective of a producer. The dialogue resolves in a mutual understanding after Forsström states his opinion in a more precise way: The Long Tail does not work for everyone, only for certain kinds of operators.

The biggest take-away ... was precisely that there were two kinds of winners:

a) a thin slice from the fat head (... the big players who bake hits with big bets)

b) a wide slice from the long tail (the aggregators and the producers of big catalogues)

The indies have traditionally been more in the ‘thin slice from the long tail’ segment, so as the tail got thinner due to the aggressive globalization and the head got less wide, it’s just the part where heads will fall and tears are shed in the worst way. (Forsström 2013b)

As shown earlier, the position of the disregarded, losing side is occupied by disappointment, worrying and complaints about the current and future possibilities for sustaining their business. Those speaking from this position also seek to construct a division among other participants and thus look for support for their position by fortifying it in terms of hegemony. This position is justified with two inter-related arguments. According to the first, the low per-stream remuneration puts more emphasis on the size of the back catalogue, and thus the producers, artists and creators of small volumes are on the losing side. The second argument is formed by a profound empirical understanding of The Long Tail, according to which revenues from the non-hit recordings are shared between an ever greater number of producers and musicians, whereas the ‘top hits’ gain even more of an audience. Once again, those producers, artists and songwriters who have no ‘hits’ and have not produced much ‘tail’—in other words are not represented widely by a back catalogue—are on the losing side.

However, despite the strong polarisation, the participants do not fall neatly into the two positions: some reassessed their opinions during the study period, and not every small-scale actor draws the dividing line between the majors and the small labels/artists or the indie labels, as Triani already argued. For example, Juha Rantala of the small label Rocket Records does not consider the situation as bad for certain indie labels, such as ‘hit factories’ with a young audience, or those who have an ‘old [back] catalogue’.

9.4 FAIR CAPITALISM, SPOTIFY AND THE JUXTAPOSING SUBJECTS

Despite the general negativity towards streaming in *Kuka Mitä Hääh?*, there are also some views that consider Spotify’s remuneration policy as only natural. Within this subject position, the promises of democratisation are taken with a grain of salt, as the digital music market is conceived as ‘business as usual’ that operates under certain economic realities. Although the different contracts for the majors and the rest are acknowledged by this position, that is considered normal, as the conditions have never been the same for the operators of various sizes.

The view of an experienced label manager, Riku Pääkkönen, who operates his own Ranka Publishing Company, is opposed to the promise of wealthy niche markets:

In the digital world (not only Spotify) income is divided fairly in terms of the logic of capitalism. Everybody negotiates the best possible deals on their behalf. The big get bigger and the small may disappear almost totally. It’s pretty funny how just a moment ago every artist thought they’d be like Radiohead soon. (Pääkkönen 2011)

The sarcastic end clause targets the often-repeated example of democratisation by digital distribution, according to which the world-famous rock group Radiohead self-released their album *In Rainbows* in 2007 for a voluntary payment on the Internet, with massive commercial success (Wikström 2009, p. 110; see Morrow 2009).

In addition to Pääkkönen’s ‘fair capitalism’, there are other criticisms of the demands for ‘fair’ remuneration. According to this, Spotify operates with a certain natural logic: the revenues are shared according to the number of streams played. These arguments are made by participants such as the few representatives of the Finnish subsidiaries of the major labels Sony and Universal, or Jani Jalonen, then licensing manager of the Finnish Composers’ Copyright Society Teosto:

One basis for the Spotify remunerations is ... the amounts of plays. ... It seems there’s somehow a belief that everybody should get remunerations. The ones who are listened to a lot get the most money. (Jalonen 2011)

Furthermore, the participants in question appeal for ‘understanding’ of the developing phase of the service instead of criticising the system of royalties. Juho Koikkalainen, the digital manager of Universal Finland, claims that

[t]he present Spotify discussion is plagued by the fact that folks still do not take into account that we are living in a turning point, where the service is at last also breaking through in Finland. As the user base grows and especially with the paying ones, everyone’s revenues will grow. (Koikkalainen 2011)

However, from the viewpoint of the first subject position discussed earlier, not only the remuneration policy but also this patient waiting for possible future profits is considered problematic in terms of equality. This is highlighted by one of the participants, a producer and an artist, who wished to remain anonymous in the study:

If the ownership of Spotify now changed hands with a huge sum, you wouldn't notice it in the payroll of artists/writers. Majors would distribute the dough to their shareholders. This doesn't necessarily feel fair keeping in mind that artists/writers are the ones who in this developing phase and probably in the future are on the losing side regarding those remunerations. (Anonymous 2011)

Between these discursive poles, the ideological struggle for the backing of the group, or hegemony, continued throughout the study period. The theory of Laclau and Mouffe (2001) is essential in analysing how subjects contribute to, maintain and implement discourse for their own ends. The position of the defenders of Spotify, the winners and adapting realists who most benefit from the service, attempts to appeal to others that the service offers the best means thus far to fight uncompensated sharing of digital music. According to this position there are natural explanations for low remuneration: the general inequality of the (music) market, as the given licensed music merely has not been streamed enough or the receiver simply lacks market power to negotiate a better agreement; or, in order to function as planned, the service is expanding and has to win over new users, which will lead to higher future rewards.

This discourse with its subject positions echoes an earlier discourse that has divided large and small actors in the music industries from at least the 1950s. The disputes regarding 'independence' of producers and artists (Hesmondhalgh 1998; Hesmondhalgh and Meier 2015) and its counterpart, the oligopoly of the major companies (Bishop 2005), are part of this historical formation. Despite making room for the utopia of a more democratic media network for a while in the post-Napster era, the historical juxtaposition of large and small actors has regained its bargaining power through music streaming—as demonstrated by the discourse in Finland.

This juxtaposing discourse has not been revived at the same time as the emerging streaming economy by accident. A shift in power relations explains the re-emergence of the controversy. The Finnish small-scale entrepreneurs' concern for their future business environment is as rational as the confidence in it of the representatives of the majors, while the whole setting follows the general lines of the discourse in the Anglo-American media. According to music industry scholar Lee Marshall (2015), the earning logic of Spotify is based on overall consumption and scaling it on a global level rather than selling individual units, which is in line with the traditional business model of the major companies, who have always

relied on aggregated revenue sources and global expansion (see Chap. 12). Thus, ‘what we may be seeing [with Spotify] is a consolidation of long-established power structures’ (Marshall 2015, p. 9), in other words a re-intermediation by the streaming services affiliated to and influenced by the majors. The Finnish discourse supports this notion, as the small-scale actors criticise the low *unit-based* remuneration and consider Spotify’s remuneration policy as well as The Long Tail to be an advantage for big players—the small royalties are not so much the problem as whether they are distributed fairly.

There are also additional worries regarding the consolidation of power relations, as implied by the anonymous participant earlier, according to whom the risks and rewards for developing a global streaming service are not distributed evenly. A number of sources help to explain the experience of injustice: while handling or minimising commercial risks—that the product might not eventually sell—has always been an essential strategy in record production (Marshall 2015; Wikström 2009, pp. 22–24), in the streaming economy its costs trickle down to the most powerless parties of the industries, such as small labels, artists and songwriters (Galuszka 2015; Rogers 2013, pp. 130–134; Wikström 2009, p. 108; cf. Stade 2014; Wikström 2009, p. 175; see Ingham 2015b; Lindvall 2009b, 2011, 2014b, 2015; Robertson 2011; Singleton 2015) (see also Chap. 12).

While the power relations within Spotify clearly lean towards the large companies such as the majors, or the services, from the viewpoint of the Finnish major operators, mostly comprised of the powerful, advantageous parties and the adapters, this is just natural—the music industries have never been about fairness. Yet should they be? This is a question for further investigation; perhaps the current antagonism regarding the streaming economy disadvantages music culture in general.

9.5 CONCLUSION

The popularity of streaming services, especially Spotify, has not taken place without conflict in Finland. The Facebook discussion group *Kuka Mitä Hääh?* hosts a battery of bitter, cynical and disappointed comments from small-scale music entrepreneurs in Finland concerning Spotify’s promises of democratisation. These producers, artists, songwriters and journalists occupy the subject position of the ‘losing side’ in the discourse. There are also voices according to whom the current situation is only natural; major actors have always had an advantage in the market. This ‘defending’

position equally appeals to other members, with the claim that the conditions of all who contribute to Spotify's music content will improve with the growth of the user base of the service. Nevertheless, the position of the losing side experiences inequality, as the majors have been able to secure advances and other disproportionate advantages in their licensing agreements, while small rights holders are expected to bear the risks of the developing service. Thus a strong juxtaposition continues in the discourse.

The experience of *Kuka Mitä Hääh?* participants supports certain notions held by scholars of the music industries regarding the streaming market, according to which small actors are in a tougher position than the owners of large catalogues (Marshall 2015; see Chap. 12). Although the antagonism between the large and the small has a long history in the recording industries, transcending the current tension might solidify the music industries and thus support music culture in general.

NOTES

1. In the case of YouTube, most videos are uploaded by users, not rights holders. However, with YouTube's Content ID programme, rights holders can claim copyright and thus either earn a portion of the advertising income, or request the withdrawal of material. YouTube and its owner Google also offer the subscription-based streaming services Google Play and YouTube Red, which promise to offer an improved experience over the regular YouTube in the USA.
2. Hegemony refers here to a dominating position in the complex field of power relations, which are conditioned by different discursive positions (see Laclau and Mouffe 2001).
3. The subject positions and discourses condition each other in a complex cycle.

BIBLIOGRAPHY

- Albini, S. (2014, November 17). Steve Albini on the surprisingly sturdy state of the music industry—In full. *Guardian*. Retrieved September 1, 2015, from <http://www.theguardian.com/music/2014/nov/17/steve-albinis-keynote-address-at-face-the-music-in-full>
- Anderson, C. (2004). The long tail. *Wired*, 10(12). Retrieved May 18, 2015, from <http://www.wired.com/wired/archive/12.10/tail.html>

- Anonymous. (2011, October 12). *Kuka Mitä Häh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Bishop, J. (2005). Building international empires of sound: Concentrations of power and property in the 'global' music market. *Popular Music and Society*, 28(4), 443–471.
- Caldas, C. (2012, March 17). Why do so many digital music services fail? *GigaOm*. Retrieved September 20, 2015, from <https://gigaom.com/2012/03/17/why-do-so-many-digital-music-services-fail/>
- Collins, S., & Young, S. (2014). *Beyond 2.0: The future of music*. Sheffield: Equinox.
- Dredge, S. (2014, May 21). Spotify: Five big challenges looming for the streaming music service. *Guardian*. Retrieved January 4, 2016, from <http://www.theguardian.com/technology/2014/may/21/spotify-five-big-challenges-streaming-music>
- Forsström, T. (2013a, November 3). 'Miksi...' *Kuka Mitä Häh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Forsström, T. (2013b, November 3). 'Niin...' *Kuka Mitä Häh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Foucault, M. (2002). *The archeology of knowledge*. Abingdon: Routledge.
- Galuszka, P. (2015). Music aggregators and intermediation of the digital music market. *International Journal of Communication*, 9, 254–273.
- Haarma, J., & Raitanen, N. (eds.). (2011). *Kuka, mitä, häh?—Populaarimusiikin ajatushautomo*. Suomen yleisradio.
- Heikkinen, M. (2011a, October 11). 'Kerrataan...' *Kuka Mitä Häh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Heikkinen, M. (2011b, October 2011). 'Yhteenvetona...' *Kuka Mitä Häh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Hesmondhalgh, D. (1998). Post-punk's attempt to democratise the music industry: The success and failure of rough trade. *Popular Music*, 16(3), 255–274.
- Hesmondhalgh, D., & Meier, L. (2015). Popular music, independence and the concept of the alternative in contemporary capitalism. In J. Bennett & N. Strange (Eds.), *Media independence*. Abingdon and New York: Routledge.
- IFPI DMR. (2014). *IFPI digital music report 2014*. Retrieved September 21, 2015, from <http://www.ifpi.org/downloads/Digital-Music-Report-2014.pdf>
- Ingham, T. (2015a, May 15). What Ministry of Sound's boss really thinks of Spotify, Lucian Grainge and Apple. *Music Business Worldwide*. Retrieved December 17, 2015, from <http://www.musicbusinessworldwide.com/what-ministry-of-sounds-boss-really-thinks-of-spotify-lucian-grainge-and-apple/>

- Ingham, T. (2015b, September 3). Lucian Grainge is having a huge year—Thanks to Spotify (and the US dollar). *Music Business Worldwide*. Retrieved June 18, 2015, from <http://www.musicbusinessworldwide.com/beggars-hasnt-licensed-apple-music-and-remains-very-concerned/>
- Jalonen, J. (2011, October 10). ‘Ollin...’ *Kuka Mitä Hääh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Jones, S. (2002). Music that moves: Popular music, distribution and network technologies. *Cultural Studies*, 16(2), 213–232.
- Koikkalainen, J. (2011, October 10). ‘Tätä...’ *Kuka Mitä Hääh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Korjus, T. (2013, January 23). ‘Jarkon...’ *Kuka Mitä Hääh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Laclau, E., & Mouffe, C. (2001). *Hegemony and socialist strategy: Towards a radical democratic politics* (2nd ed.). London: Verso.
- Lanier, J. (2010). *You are not a gadget*. New York: Alfred A. Knopf.
- Lindberg, P. (2013, November 1). ‘My...’ *Kuka Mitä Hääh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Lindvall, H. (2009a, August 17). Behind the music: The real reason why the major labels love Spotify. *The Guardian*. Retrieved October 28, 2014, from <http://www.theguardian.com/music/musicblog/2009/aug/17/major-labels-spotify>
- Lindvall, H. (2009b, September 3). Behind the music: The YouTube war is over—But at what cost? *Guardian*. Retrieved December 30, 2014, from <http://www.theguardian.com/music/musicblog/2009/sep/03/youtube-google-prs-nda>
- Lindvall, H. (2011, February 1). Spotify should give indies a fair deal on royalties. *The Guardian*. Retrieved October 28, 2014, from <http://www.theguardian.com/media/pda/2011/feb/01/spotify-royalties-independents>
- Lindvall, H. (2014a, January 15). Will beats music trump Spotify with its artist charm offensive? *Guardian*. Retrieved December 30, 2014, from <http://www.theguardian.com/media/media-blog/2014/jan/15/beats-music-spotify-artist-royalties-dr-dre-trent-reznor>
- Lindvall, H. (2014b, April 30). The music industry is divided over streaming—And heading for a collision. *Guardian*. Retrieved December 30, 2014, from <http://www.theguardian.com/media/media-blog/2014/apr/30/music-streaming-revenue-pandora-spotify>
- Lindvall, H. (2014c, May 29). YouTube’s monopolistic behaviour is hurting indie music labels. *Guardian*. Retrieved December 30, 2014, from <http://www.theguardian.com/media/media-blog/2014/may/29/youtube-monopolistic-behaviour-indie-music-labels>

- theguardian.com/media/media-blog/2014/may/29/youtube-indie-music-labels-royalty-rates-video-streaming-audio
- Lindvall, H. (2015, February 16). ‘Are you listening?’ Swedish songwriters accuse streaming companies of short-changing them. *Guardian*. Retrieved January 9, 2016, from <http://www.theguardian.com/technology/2015/feb/16/swedish-songwriters-accuse-spotify-music-streaming-companies-of-short-changing-them>
- Maasø, A. (2014, June 26). A better way to cut a cake and eat it too: On revenue share in music streaming and the value of platform economics. *Medium*. Retrieved September 3, 2015, from <https://medium.com/@arnte/a-better-way-to-cut-a-cake-and-eat-it-too-de0c570b8311>
- Manyika, J. (2009). Google’s view on the future of business: An interview with CEO Eric Schmidt. *McKinsey Quarterly*, 1, 138.
- Marshall, L. (2015). ‘Let’s keep music special. F—Spotify’. On-demand streaming and the controversy over artist royalties. *Creative Industries Journal*, 8(2), 1–13.
- McLeod, K. (2005). MP3s are killing home taping: The rise of Internet distribution and its challenge to the major label music monopoly. *Popular Music and Society*, 28(4), 521–531.
- Morrow, G. (2009). Radiohead’s managerial creativity. *Convergence: The International Journal of Research into New Media Technologies*, 15(2), 161–176.
- Mulligan, M. (2013). Staggered advances: A proposal for better streaming income for artists. *Music Industry Blog*. Retrieved January 15, 2015, from <http://www.musicindustryblog.wordpress.com>
- Mulligan, M. (2014). *The death of the long tail: The superstar music economy*. MIDiA Consulting (PDF publication).
- Pääkkönen, R. (2011, October 12). ‘Digimaailmassa...’ *Kuka Mitä Häh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Resnikoff, P. (2014). Artists will receive nothing from the \$3 billion Beats acquisition, sources say... *Digital Music News*. Retrieved September 17, 2015, from <http://www.digitalmusicnews.com/2014/06/09/artists-will-receive-nothing-3-billion-beats-acquisition-sources-say/>
- Robertson, M. (2011, December 11). Why Spotify can never be profitable: The secret demands of record labels. *Gigaom*. Retrieved December 11, 2014, from <https://gigaom.com/2011/12/11/why-spotify-can-never-be-profitable-the-secret-demands-of-record-labels/>
- Rogers, J. (2013). *The death and life of the music industry in the digital age* (1st ed.). London: Bloomsbury Publishing.
- Singleton, M. (2015, May 19). This was Sony Music’s contract with Spotify. *The Verge*. Retrieved June 18, 2015, from <http://www.theverge.com/2015/5/19/8621581/sony-music-spotify-contract>

- Spotify. (2015). *Spotify for artists*. Retrieved September 19, 2015, from <https://www.spotifyartists.com/>
- Stade, P. (2014). This video is not available in Germany: Online discourses on the German collecting society GEMA and YouTube. *First Monday*, 19(10). Retrieved November 3, 2015, from <http://firstmonday.org/ojs/index.php/fm/article/view/5548>
- Strachan, R. (2007). Micro-independent record labels in the UK discourse, DIY cultural production and the music industry. *European Journal of Cultural Studies*, 10(2), 245–265.
- Triani, N. (2013a, January 23). ‘Jarkko...’ *Kuka Mitä Häh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Triani, N. (2013b, March 16). ‘hey...’ *Kuka Mitä Häh?* [Facebook group message]. Retrieved January 24, 2014, from <https://www.facebook.com/groups/kukamitahah>
- Wikström, P. (2009). *The music industry: Music in the cloud*. Cambridge: Polity Press.
- Young, S., & Collins, S. (2010). A view from the trenches of music 2.0. *Popular Music and Society*, 33(3), 339–355.

Off the Charts: The Implications of Incorporating Streaming Data into the Charts

Steve Collins and Pat O’Grady

In the last fifteen years, nearly every facet of the music industries has been irrevocably disrupted: the once clearly demarcated lines between producers and consumers have blurred; the distance between artists and fans has decreased—vanished in some cases; and access to global distribution has equalised to the point where unsigned local artists sell their music alongside chart-topping giants (Collins and Young 2014, p. 101). Music streaming services have emerged as an increasingly popular means of consuming recorded music. At the time of writing, streaming services such as Spotify represent the latest point marked on a long line of technological change that has affected the music industries.

As a measure of popularity, music charts have traditionally been compiled based on data derived from the point of sale. This is not a particularly refined method of measuring popularity or taste, as a single or album

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may be purchased and potentially never played. Streaming services, however, offer far more nuanced data about listeners' engagement with music, logging individual plays as well as the time and location. Furthermore, the inclusion of peripheral data generated through partnerships with other online services such as Facebook can provide deeper and more meaningful understandings of engagement with music. Thus, streaming platforms can reveal data about music consumption that is undiscoverable by current metrics (Beer and Taylor 2013, p. 10). This information could be of great benefit to the recording industry in identifying trends in consumption (virtually in real time) and fulfilling audiences' tastes. That said, a transition towards incorporating or prioritising streaming data is not without its own set of challenges. Internationally, some chart compilers such as Billboard in the USA and the UK's Official Charts Company already use consolidated data, whereas in Australia ARIA (Australian Recording Industry Association) provides a separate chart that is generated from streaming data. As streaming services increase in popularity, more charts will be expected to consolidate data; but what are the implications of this for the charts as a measure of popularity? On the surface, incorporation of streaming data is a reflection of changing consumption models, but streaming data tells us far more about popularity, taste and engagement than retail data ever could; when, where and why listeners engage with particular songs introduces a new level of meaning into the charts, one that is perhaps so different from point-of-sale metrics that it is incompatible.

New technologies and new practices tend to accompany one another and frequently disrupt those that went before them; music streaming services are no exception. This chapter examines the implications of streaming data for music charts. First, a brief overview of how charts are calculated will be provided. Such an overview is necessarily broad, as there are many chart systems at play across the world and many different methods for calculating positions. Next, it is prudent to provide some historical and contextual background to music streaming technologies. Finally, we bring the two together to explore the implications for employing new metrics in charting songs.

10.1 A BRIEF HISTORY OF THE CHARTS

Historically, like most facets of the music industries, the charts have not been immune to technologically driven change. 'At one time, a number 1 song was the one that was covered by the most artists and/or sold

the most copies of sheet music; after recordings came in, this changed gradually to the best-selling record' (Jasen 2002, p. ix). Holmes (2006, pp. 258–259) recounts that Billboard began reporting sales of sheet music and the most popular songs in Vaudeville in 1913, and by the early 1930s along with Variety was charting 'the top songs in radio airplay and sheet music sales'. Early music charts 'directly reflected the power of the publisher' rather than the performer (Hakanen 1998, p. 102), but this changed with the advent of radio. Buckley and Shepherd (2003, p. 366) note that this change 'broadened the demographic base for popular music and created a huge audience for individual performers such as Eddie Cantor and Rudy Vallee, who were followed by figures such as Bing Crosby and Frank Sinatra'. As Hakanen states, '[r]adio was the most important force in the rise of the performers and the transformation of the chart' (1998, p. 103). In the late 1930s, Billboard started tracking record sales and jukebox plays; continuing through to now, music charts have become a system for ranking popularity based on sales—a 'universal value of music' (Hakanen 1998, p. 104).

10.2 THE VALUE OF CHARTS

Music charts exist to reflect the commercial success of songs and albums, which ostensibly indicates popularity, a factor that may act as a sales driver by inducing non-consumers to become consumers in a bandwagon effect (Parker 1991, p. 205). 'The charts fulfill a crucial role in the music industry system, providing feedback from the market to the record labels about what kind of artist and what kind of music are commercially successful at the moment. This feedback constitutes an important part of the structure that generates the fundamental dynamics of the industry' (Wikström 2013, p. 257; see also Shuker 1998, pp. 48–50). Music charts are also a critical feedback feature for consumers. Parker (1991, p. 205) points out that the 'level of consumer obsession with sales figures is almost unique to the record industry'. This fascination with the commercial success of recorded music is reflected in the roles played historically by *Top of the Pops*, *America's Top 40* and so on. Today, charts measure success across a range of genres (for example pop, country, dance, world), formats (singles, albums, music video) and distribution models (physical, download, streaming), but are typically dominated by major labels (and their subsidiaries), which are possessed of the necessary promotional resources to drive large-scale commercial success. As a result, the charts have been criti-

cised as representing 'highly selective populism' (Street 1986, p. 116; see also Street 2012, pp. 120–123) that concomitantly marginalises minor artists (Negus 1993, p. 61). Hakanen (1998, p. 97) positions music charts as signifying the complex relationships between record labels, artists, consumers and the music itself, but he also critiques them as presenting a 'false positive' by virtue of being 'part of the production of a "new" consumerism—one driven by the illusion of personal choice'.

In addition to charting current consumption trends, music charts also create narratives of historical value. For example, Billboard ([n.d.](#)) provides year, decade and all-time chart data, which acts as a measure of comparison between artists from different eras. The value of this data is genre specific: discussions of pop acts rely more heavily on such comparisons than subcultural genres whose ideologies may reject notions of capitalist value. In pop and rock genres, such data is used to inform canons and biographies. For example, Internet music resource MyMusic features biographies of artists and frequently lists data on artists' chart successes, which in turn become proxies for measuring or establishing 'quality'. Billboard (2008) orders artists according to who has had the most number one hits: Diana Ross's number one hits from the 1960s can be compared with Beyoncé's in the 2000s. Despite the obvious differences in social and cultural conditions, these are still important means to measure success and in turn value, particularly for consumers of pop music. The problem with a shift to engagement, and indeed an in-between period of measurement of both consumption and engagement, is that these comparisons become incompatible.

10.3 A GLOBAL PHENOMENON OF DIFFERENCE

The compilation of music charts is a global phenomenon: for example Billboard (USA), The Official Charts Company (UK), Gaon (South Korea), Oricon (Japan), ARIA (Australia), VG-lista (Norway) and National-Report (Colombia). Comparatively, however, not all charts on the global stage are compiled in the same manner, nor from similar data sets (Shuker 1998, p. 49). For instance, Colombia's National-Report compiles music charts based solely on radio airplay. Without casting aspersions on Colombian network programmers, this is not a robust method for determining commercial success and leaves the door open for payola-like operations to compromise the charts. In most other countries, music charts are based on sales figures, sometimes combined with other data

including radio airplay. The relationship between radio airplay and the charts has experienced some turbulence. The payola scandal of the 1960s that implicated radio DJs Alan Freed and Dick Clark highlighted the fragility of the ‘circular logic, in that the charts are based on a combination of radio play and sales, but airplay influences sales, and retail promotion and sales influence radio exposure’ (Shuker 1998, p. 49). While payola was criminalised shortly after the Freed and Clark exposé, the practice allegedly continues under the guise of ‘independent promotion’ (Boehlert 2001; Dannen 1990).

10.4 CALCULATING SUCCESS

The US Billboard charts are calculated by combining data for traditional sales (administered by Nielsen SoundScan) and radio airplay with digital downloads (incorporated in 2005) and streaming data (incorporated in 2014). Similarly, the UK Official Charts began incorporating digital downloads in 2006 and streaming data in mid-2014. It is interesting at this stage to note that companies such as Billboard and Official Charts Company have implemented a weighting ratio for equating streams to (both physical and downloaded) purchases. For example, ‘SoundScan and Billboard will count 1500 song streams from services like Spotify, Beats Music, Rdio, Rhapsody and Google Play as equivalent to an album sale’ (Sisario 2014). The UK Official Singles Chart equates one hundred streams to one download or physical sale (Sherwin 2014). The logic underpinning these weightings will be discussed later. The totality of individual music charts and their differences in scope and calculation formulae lie beyond the scope of this chapter; rather, what we aim to do here is provide a brief and broad overview of how charts function and relate to other areas of the industry.

10.5 A BRIEF HISTORY OF THE FUTURE

Streaming services like Spotify are the latest mark on the entwined history of music and technology; a history that is characterised by innovation and displacement. The intrusion of computer companies such as Apple and Google into the music industries echoes that of the early twentieth-century electronics companies, which displaced sheet-music publishers with the advent of recording technology and saw those companies transformed into the early record labels (Wikström 2009, pp. 62–63). Similarly,

ongoing innovations in music technologies, distribution and formats have not neatly superseded predecessors; the economies and cultures of production and consumption around those older formats have been *displaced* rather than *replaced*. For example, the increasing popularity of CDs in the 1990s led to the decline of the then dominant cassette tape market, but even in the twenty-first century cassette culture is extant, as evidenced by independent labels such as Gnar Tapes and Burger Records, both of which specialise in cassette releases. Burger Records sold over 80,000 cassette releases by 250 different artists between 2007 and 2012 (Thomas 2012). Similarly, the advent of digital music (especially compressed) formats such as MP3 displaced CDs, yet in 2013 the International Federation of the Phonographic Industry (IFPI) reported that physical formats still comprised 51% of music sales globally (IFPI 2013). Finally, the 'vinyl revival' has seen renewed interest in vinyl records, with the format now more popular than it has been since the 1980s. According to the 2014 mid-year statistics from Record Industry Association of America (RIAA), vinyl made up 16% of overall shipments of physical formats, an increase of 43% over the previous year (Friedlander 2014, p. 2).

10.6 THE VALUE OF A STREAM

Although widespread adoption of streaming platforms is relatively recent, the financial viability of a market for streaming music has historical precedent. Witt (2015, pp. 56–57) writes on how commercial streaming possibilities for MP3 were firmly in the minds of its developers at the Fraunhofer Institute, but it took many years before the possibilities of a centralised music distribution service could truly manifest. MP3.com was established in 1997 by Greg Flores and Michael Robertson and presents a salient example of an early attempt to create a viable business model from streaming music. One of the first online music distribution platforms and primarily catering to unsigned artists (bastions of the traditional recording industry were still to 'get with the digital program'), MP3.com 'provided two major developments to the emerging field of digital music. First, artists could upload their own music and distribute it via the site as downloads, streaming audio and Digital Automatic Music (DAM) CDs. Second, it provided the more consumer-oriented MyMP3 or Beam It service' (Collins and Young 2014, p. 50).

In the middle of 1999, MP3.com raised US \$370 million through public investment and subsequently launched a 'payback for playback' (P4P)

scheme, whereby artists would be paid according to the number of unique streams and downloads of their uploaded tracks. Artist revenue was generated by onsite advertising and rewarded those invested in self-promotion. For example, Alex Smith's Cynic Project earned \$4789 in January 2000 alone (Spellman 2002, p. 61). In the following two years, Smith's combined CD sales and P4P monies earned him over \$125,000. This level of success was not isolated:

Similarly, during the summer of 2000, Mikel Fair and Jordan Kolar of 303Infinity embarked on a promotion campaign in which flyers with the band's [MP3.com](#) URL were distributed up and down the beaches of California. This campaign resulted in a period where 303Infinity was earning an impressive US\$700 per day and netted around \$250,000 from P4P across four years. (Collins and Young 2014, p. 52)

In some ways, the MyMP3 or Beam It service preempted Spotify by over a decade, foreshadowing current emergences in cloud-based delivery. Instead of a subscription-based model, however, users only had access to music they had already purchased courtesy of an impressive number of CDs ripped and offered via streaming playback. Users were required to prove (via a verification protocol) that they owned an original copy of the selected CD. The short history of [MP3.com](#) is littered with legal wrangles and the Beam It service closed in 2001 following an out-of-court settlement with Universal Music Group for \$53.4 million, which financially crippled the site and would eventually lead to its closure (at least in its original incarnation) in 2003. In the intervening years and overcoming some reluctance and hostility, however, the recording industry has emerged as increasingly digitally savvy, denying the death knell that was sounded at the confluence of file sharing, digital rights management and compressed audio formats. Arguably, after the success of iTunes the decision to license catalogues to streaming services was a matter of logistics; the path towards streaming was already paved.

10.7 THE CURRENT STATE OF STREAMING

In some territories streaming is now displacing downloads, but its dominance is far from universal. For example, in Sweden (notably the site of Spotify's origins) '91% of digital music income is derived from streaming, while German and Canadian consumers prefer to download their

music' (Collins 2014). The differences between territories aside, streaming *is* generating income for the music industries. In January 2013, Martin Mills reported that of the total revenue for Beggars Group, 22% was derived from streaming services (Lindvall 2013). Mills added that the majority of his artists earn more from streaming than from pay-for-download. YouTube has emerged as a significant source of revenue in addition to dedicated music streaming services such as Spotify, and has proven itself to be invaluable for promotional purposes. According to Martin Goldschmidt, his record label Cooking Vinyl can earn an average of \$5000 per million views. Gotye's 'Somebody That I Used to Know' premiered on YouTube and Australia's late-night music television show, Rage. As of August 2015, the video had accumulated 673,618,366 views and generated further potential income from monetising cover versions, parodies and other uses uploaded to YouTube.

There is clearly a strong demand for and uptake of streaming technologies, yet, as with downloads, the emergence of the new platform has not been without challenges. In December 2013, Spotify revealed that it pays between \$0.006 and \$0.0084 for a single play of a track (Sherwin 2013), drawing criticism from high-profile artists such as Thom Yorke and Taylor Swift, claiming that streaming devalues recorded music (see Krukowski 2012; Swift 2014). In spite of the ongoing conversations and concerns surrounding royalty payments and placement in an artist's brand strategy, it is apparent that streaming services are increasingly popular with the recording industry and consumers:

Global subscription revenue for digital music streaming in 2013 was up 51.3%, reaching US\$1.1 billion. There are 450 licensed subscription services, including Deezer, Spotify and iTunes Radio. There are 28 million paying subscribers for digital music streaming ... in Sweden (home of Spotify), France and Italy the number of users of streaming subscriptions are higher in 2013 than users downloading digital music. (Dilanchian 2014)

The BPI reported that while sales of singles and albums declined in 2014, the shortfall was almost completely offset by revenue generated by streaming. It seems that streaming is more than just a passing fad and is likely to supersede other formats. Through analysis of the annual growth for streaming platforms, Ingham (2015) posits that in the USA, streaming revenue will dominate the market by 2016. The supremacy of streaming, however, is not globally guaranteed within the next couple of years.

France, for example, is unlikely to see more than 50% of total music industry revenue derived from streaming until 2022.

The shape of the recording industry is once again influenced by the emergence of new technologies. The impacts of, and discourses around, streaming platforms have largely been couched in terms of an industry that is shifting towards a business model founded on access and what this means for artist royalties. Other effects are often overlooked. In this chapter we are primarily concerned with what the rise in streaming means for music charts. As previously stated, streaming data is increasingly contributing to consolidated charts, so what are the implications of the differences between physical purchase and on-demand streaming for the charts, the traditional measure of success and popularity?

10.8 THE IMPLICATIONS OF STREAMING FOR THE CHARTS

At a technical level, streaming services are a logical (and in hindsight, perhaps predictable) evolution in the lifecycle of music distribution, but what does adoption of the ‘heavenly jukebox’ (Mann 2000) mean for our measures of taste, popularity and success? Are there significant differences between measuring popularity via point-of-sale data as opposed to the number of times a particular song or album is played? Hakanen’s contention that sales are the ‘universal value of music’ (1998, p. 104) has been irrevocably disrupted as metrics for the consumption of recorded music shift from purchase of a chattel towards access to a service. Streaming data reveals far more than sales data about the success and popularity of a song. Point-of-sale data can never take into account how consumers actually engage with music. One person buys a record and plays it to ten friends or lends it out to others; the sharing and use of the artefact cannot be logged and measured. Similarly, someone is gifted an album as a present and never listens to it, but that initial sale still contributes to that album’s mark of success. It is an obvious point, but just because a song or album is purchased does not mean that it is ever played or even enjoyed by the listener. Streaming data, however, can offer highly nuanced information about how many times a particular track is played, and whether it is played all the way through or skipped after ten seconds. It is also possible to tell how many times an individual user plays any given song; one could fairly assume that repeat playback indicates some enjoyment or emotional connection to the

song in question. As Billboard's director of charts, Silvio Pietroluongo, states: 'We were always limited to the initial impulse, when somebody purchased an album ... Now we have the ability to look at that engagement and gauge the popularity of an album over time' (Sisario 2014).

The notion of a successful recording artist has traditionally been predicated on measuring the number of sales, but a shift towards measuring success on the basis of streams arguably represents a departure from how we understand and construct 'success' in the twenty-first-century music industries. If a comparison is conducted in solely economic terms then, for example, according to Krukowski (2012) it would take in excess of 13 million streamed plays to generate the same revenue from selling 1000 singles in 1988. There is no way to tell how many times those 1000 singles were played, yet streaming data returns a precise figure. Sales and streaming are in two different worlds: it is very difficult to meaningfully compare a number of sales to a number of streams. At present charts use weightings formulae to calculate an equivalence between streams and purchases. For example, the UK's Official Albums Chart uses a methodology to ensure that the popularity of the album as a whole is reflected rather than the performance of its singles, which could skew the data:

Official Charts will take the 12 most streamed tracks from the standard version of the album, the top two songs will be down-weighted in line with the average of the rest. The total of these streams will be divided by 1000 and added to the physical and digital sales of the album (the 1000 ratio is used to reflect the broad differences in value between a track stream and the price paid for an album). (Copsy 2015)

In the USA, however, all streams are simply added to an album's total, which means that the popularity of an album could be misrepresented due to an extremely successful single—something that the UK was trying to avoid (Morris 2015). In 2014, the Official Charts Company announced that it would be including streaming data in the UK's Top 40 and would weight 1000 streams to one purchase. Martin Talbot, CEO of the Official Charts Company, stated, 'For the first time the charts will accurately reflect the nation's most popular songs rather than those most widely bought. Previously you may have bought a single by your favourite band but not played it too often' (Sherwin 2014). The weighting of streams to purchases is based on attempts to draw economic parity between the two consumption models, but the relative value of one is dependent on the

other. What happens if/when the paradigm of music ownership is completely superseded by music access models, or even if the pendulum swings even more significantly in favour of streaming as the dominant means of music consumption? As the number of purchases decreases and streams rise, will charts still try to rationalise weightings or measure simply on the number of streams aggregated from numerous platforms? Arguably, without weightings, the charts become more genuinely representative of taste. As Talbot suggests, streaming data offers ‘a purer reflection of popularity, it’s more democratic. It tells us what songs people are actually listening too [*sic.*] over days, weeks and months’ (Sherwin 2014).

The inclusion of streaming data in the charts is a step towards a more nuanced representation of success, but that data is currently limited to services such as Spotify whose primary business is delivering music. YouTube, however, has emerged as an unlikely locus for Mann’s ‘heavenly jukebox’. In 2012, *The Guardian* reported on a Nielsen poll exploring YouTube’s role in music consumption (Michaels 2012). The poll found that nearly two-thirds of the 3000 teenagers—the largest demographic for consumers of new music—surveyed reported using YouTube to stream songs. YouTube’s foray into the music industry has become more formalised in the intervening years with its partnership with Vevo (a joint venture between Universal Music Group, Google, Sony Entertainment and Abu Dhabi Media) and a new licensed streaming service, YouTube Music Red, which officially launched in 2015. In 2013, the Billboard charts began incorporating YouTube data, a move that was criticised due to concerns that novelty and viral videos would be rewarded with chart placement—a privilege formerly reserved only for ‘serious’ music. Indeed, the first beneficiary under the formula was ‘Harlem Shake’ (Baauer 2012), which only produced modest sales but benefited from significant exposure, partially due to a phase of user-generated content affiliated with the original video. Ostensibly, the inclusion of unfiltered and raw YouTube data could see the next Rebecca Black take the number one position. The UK’s Official Charts Company has been more reserved and is not yet including YouTube streams due to some issues in distinguishing between videos: ‘YouTube’s data causes problems for chart compilers because it does not separate official, record label-sanctioned streams from user-generated videos’ (Savage 2015). This is problematic. While it is unlikely that an unsigned, amateur producer working from a home studio could generate enough plays on YouTube to infiltrate the charts, this does suggest that despite the opportunities that have emerged for self-distribution, this sector of music

production goes unacknowledged by the officiators of the charts, who are only interested in supporting 'label-sanctioned' artists (Negus 1993, p. 61). The truly independent remain marginalised and the charts are not as 'pure' or 'democratic' as Martin Talbot anticipates.

The charts currently reflect the economic successes of recorded music, which emphasise the envelope rather than the content, as particular consumption methods are privileged over others. Streaming data provides more accurate and immediate reflections of taste, yet those individual data and engagements are considered of less importance than a sale of a recording that may never be played and the level of enjoyment never known. Is this all that the charts can ever be, a mirror of economic success rather than a barometer of engagement? If the primary purpose of the charts is to communicate valuable feedback from the market to record companies about the types of artist and music that are currently commercially successful (Witt 2015, pp. 43–44), then streaming data provides far more nuanced feedback about current listening trends, since it is sourced directly from engagement with music. The data can only benefit the recording industry with a more articulate understanding of what music consumers are enjoying right now. After all, as Hilary Rosen, former RIAA CEO, testified to the US Congress, record labels' 'sphere of expertise is really the marketplace. It is marketing, promotion and creating the demand. Find the fans, sell the music' (US Congress 2000, p. 120).

Spotify knows a lot about its users. In early 2014 it purchased The Echo Nest, a Boston-based company that developed a form of artificial intelligence that collects data pertaining to music listening (see Chap. 3, this volume). Spotify already has data on the time of day and location from which users listen to certain songs and can infer their activities such as studying, exercising or driving to work. Brian Whitman, co-founder of The Echo Nest, wants to push data collection further and factor in peripheral information such as the weather or relationship statuses on Facebook: 'We've cracked the nut as far as knowing as much about the music as we possibly can automatically, and we see the next frontier as knowing as much as we possibly can about the listener' (Seabrook 2014). Spotify purchased The Echo Nest to try to understand all the big data it has collected from its users and create detailed taste profiles (Dredge 2015). These taste profiles feed into Spotify's personalised recommendation system, so how will this affect chart positions? The human tastemakers of radio and review are replaced by algorithms. Instead of the traditional chart-based recom-

recommendations of popularity (as measured by economic success), listeners will enjoy suggestions automatically generated by back-end technologies drawing on their entire listening history and other aggregated data.

10.9 DO THE CHARTS STILL HAVE A PURPOSE?

The ascendancy of streaming platforms for the distribution and consumption of music changes how the charts are calculated and, perhaps more importantly, what the charts reflect. This raises the question of whether or not the charts—at least in their traditional form—are still needed or relevant. Measuring popularity through economic transactions rather than engagement will seem increasingly anachronistic as streaming platforms reflect what people are listening to right now. The near real-time nature of consumption patterns for users of streaming services influences broader consumption patterns and tastes in music (Williams 2015). In contrast to weekly charts predicated on sales of recordings, the real-time music consumption data generated by streaming service applications is constantly updated. For example, the front page of Spotify features the songs that are most popular on that particular day. This feature demonstrates a fundamental shift in both the frequency and the modes of access to such data provided to music consumers. The online music store iTunes played a significant role in this shift. During the 2000s, it was the first digital online music store to have widespread uptake among consumers (Pham 2013). As its popularity grew and more data became available, Apple integrated real-time information into the iTunes store that charts consumer behaviour. As a measure of engagement—and not purchases—the data generated by streaming is far more representative of listeners' behaviour. This data affects the ways in which music consumers assess mass consumption patterns such as the traditional and sales-based charts. *Empire* (2015) clearly demonstrates this effect by listing a range of attitudes that young music consumers have towards charts. For example, Anthony Ryder, 16, says, 'I listen to some [Spotify] playlists ... instead of being the top 20, it's about what you actually want to listen to'. Likewise, Solomon Pace, 16, states, 'I don't really pay attention to the charts—they don't really represent what most people like'. *Empire's* interviewees suggest that younger people are turning their backs on the traditional charts not only as a measure of popularity, but also as a means for discovering new music. Viola Asztalos, 24, says, 'I discover things through Spotify on my phone—I listen to my favorite bands on there, but there's also the related artists link,

and I find new music through there, and friends'. While many people still enjoy the rituals of the traditional charts, they are increasingly becoming less meaningful for assessing the value and popularity of music. Younger consumers, who make up the largest sector of the market, are tending to move away from actively following traditional charts in favour of chart and recommendation systems within the new streaming platforms. As Robinson (2015) points out,

This means that charts—traditionally the barometer of teen taste—don't completely take account of the people who listen to the most new music. Certain genres have always fallen foul of chart compilation etiquette and, as we move forward, there will continue to be anomalies. Last year, Fleur East's Uptown Funk cover was the most popular song in the UK for the best part of a week, but like all X Factor performances it wasn't eligible for the chart.

Streaming services provide many types of consumption data for consumers beyond real-time charts. These range from weekly charts of global and local consumption patterns of users to more personalised friend networks specific to the individual user (Collins 2013). In the first instance, charts of global and local consumption patterns are similar to charts provided by digital music stores. They both provide quantitative-style large-scale consumption patterns and are indicators of dominant trends. These kinds of charts favour pop music; however, streaming services also provide personalised consumption data aggregated by the user's individual social media networks. Since 2010, Facebook and Spotify have made concerted efforts to integrate into each other's services (Collins 2013; Grabham 2011). These efforts have socialised individuals' streaming habits, allowing friends to see what they are listening to in real time through Facebook. By default, this data is presented as a rolling list on the right-hand side of the user interface in Spotify. The user's experience of searching or browsing Spotify's catalogue and curated playlists is accompanied by updates of what their Facebook friends are listening to at that particular moment. Furthermore, social media data generates weekly charts that reflect popularity within friend networks, a far more personalised and microcosmic configuration of music charts. At the time of writing, Spotify's desktop and mobile applications direct the user to a neighbouring tab within the application, 'Friends Top Tracks', which shows a weekly update of those with whom the user is connected via Facebook. This data provides the

user with a list of songs that are trending within their personal networks. Dependent on the dominant demographics and tastes within that particular network, this kind of data can showcase songs that are otherwise outside of the mainstream, or even subcultural, charts. The relationship between Facebook and Spotify shows that social media plays an increasingly crucial role in how consumption data is ostensibly making centralised charts redundant. The coupling of social media and music reconfigures charts away from reflections of mass consumption towards personalised and nuanced information specific to the individual's tastes.

10.10 CONCLUSION

The history of music has been accompanied and arguably driven by the uptake of new technologies. The now ubiquitous network that en masse connects millions of listeners also allows for personalised and local tastes. The charts have endured for over a hundred years, and while we do not suggest that they will disappear any time soon, they will certainly change. Just as the early charts for sheet music adapted to recorded media, the current charts are reconfiguring to take account of twenty-first-century consumption practices and audience fragmentation. The charts used to reflect an imagined consensus of popularity, but streaming technologies offer new understandings of engagement with music that extend far beyond the limited data generated by sales. Real-time quantitative and qualitative data offers new ways to understand what popularity means for music. Integration with social media disrupts traditional tastemaking structures with peer recommendation. Charts predicated on sales data are a primitive and flawed way to indicate popularity. Parker's description of mid-twentieth-century charts as building a 'democracy of taste' is more accurately deployed today (Parker 1991, p. 210; Toynbee 2000, p. 10). Sales-based charts reflect consumers' market choices, which are affected by factors such as availability of the funds to procure the recording. Subscription-based services like Spotify, however, are different, and continuously measure consumer engagement with the full extent of the licensed portfolio. Music charts continue to provide valuable feedback to the recording industry about consumer choices and tastes, as well providing a means for consumers to discover new music. We still need to measure the popularity of music, but how that is done will transform over time as streaming platforms become the global norm.

BIBLIOGRAPHY

- Baauer. (2012). Harlem Shake. Mad Decent.
- Beer, D., & Taylor, M. (2013). The hidden dimensions of the musical field and the potential of the new social data. *Sociological Research Online*, 18(2). Retrieved November 15, 2015, from <http://www.socresonline.org.uk/18/2/14.html>
- Billboard. (n.d.). Billboard charts archive. *Billboard*. Retrieved July 1, 2015, from <http://www.billboard.com/archive/charts>
- Billboard. (2008). Hot 100 Anniversary: Most No. 1s by artist. *Billboard*. Retrieved July 1, 2015, from <http://www.billboard.com/articles/news/1044523/hot-100-anniversary-most-no-1s-by-artist>
- Boehlert, E. (2001, March 15). Pay for play. *Salon.com*. Retrieved December 12, 2014, from http://www.salon.com/2001/03/14/payola_2/
- Buckley, D., & Shepherd, J. (2003). Stardom. In J. Shepherd, D. Horn, D. Laing, P. Oliver, & P. Wicke (Eds.), *Continuum Encyclopedia of popular music of the World* (pp. 366–369). London and New York: Continuum.
- Collins, S. (2013, October 10). Spotify: Merging music with social media. *The Conversation*. Retrieved February 9, 2015, from <http://theconversation.com/spotify-merging-music-with-social-media-18401>
- Collins, S. (2014, June 2). Apple and beats: Where musicians and geeks collide. *The Conversation*. Retrieved December 19, 2014, from <http://theconversation.com/apple-and-beats-where-musicians-and-geeks-collide-27368>
- Collins, S., & Young, S. (2014). *Beyond 2.0: The future of music*. Bristol: Equinox.
- Copsy, R. (2015, February 11). UK's official albums chart to include streaming data for first time. *Official Charts*. Retrieved July 20, 2015, from http://www.officialcharts.com/chart-news/uk-s-official-albums-chart-to-include-streaming-data-for-first-time__8012/
- Dannen, F. (1990). *Hit men: Powerbrokers and fast money inside the music business*. First Vintage Books Edition.
- Dilanchian, N. (2014, March 20). 7 revenue facts in music in 2013. *Dilanchian.com*. Retrieved December 19, 2014, from <http://www.dilanchian.com.au/index.php/lightbulb-blog/751-7-revenue-facts-in-music-in-2013>
- Dredge, S. (2015, January 6). Spotify has six years of my music data, but does it understand my tastes? *The Guardian*. Retrieved March 12, 2015, from <http://www.theguardian.com/technology/2015/jan/06/spotify-music-streaming-taste-profile>
- Empire, K. (2015, April 26). Do the charts matter in the age of Spotify? *The Guardian*. Retrieved June 21, 2015, from <http://www.theguardian.com/music/2015/apr/26/do-charts-matter-age-spotify>
- Friedlander, J. P. (2014). News and notes on 2014 mid-year RIAA shipment and revenue statistics. *RIAA*. Retrieved December 19, 2014, from <http://riaa.com/media/1806D32F-B3DD-19D3-70A4-4C31C0217836.pdf>

- Grabham, D. (2011, September 23). Spotify on Facebook: What you need to know. *Techradar*. Retrieved July 12, 2015, from <http://www.techradar.com/au/news/internet/web/spotify-on-facebook-what-you-need-to-know-1028622>
- Hakanen, E. A. (1998). Counting down to number one: The evolution of the meaning of popular music charts. *Popular Music*, 17(1), 95–111.
- Holmes, T. (2006). *The routledge guide to music technology*. New York: Routledge.
- IFPI. (2013). Digital music in figures. *IFPI*. Retrieved December 19, 2014, from <http://www.ifpi.org/facts-and-stats.php>
- Ingham, T. (2015). How long will streaming take to dominate the music business? *Musicbusinessworldwide.com*. Retrieved May 11, 2015, from <http://www.musicbusinessworldwide.com/how-long-will-it-take-streaming-to-dominate-the-music-business/>
- Jasen, D. A. (2002). *A century of American popular music*. Oxon: Routledge.
- Krukowski, D. (2012, November 14). Making cents. *Pitchfork*. Retrieved December 22, 2014, from <http://pitchfork.com/features/articles/8993-the-cloud/>
- Lindvall, H. (2013, January 5). How record labels are learning to make money from YouTube. *The Guardian*. Retrieved December 19, 2014, from <http://www.theguardian.com/media/2013/jan/04/record-labels-making-money-youtube>
- Mann, C. (2000). The heavenly jukebox. *Atlantic Online*. Retrieved October 12, 2011, from <http://www.theatlantic.com/past/docs/issues/2000/09/mann.htm>
- Michaels, S. (2012, August 16). YouTube is teen's first choice for music. *The Guardian*. Retrieved May 12, 2015, from <http://www.theguardian.com/music/2012/aug/16/youtube-teens-first-choice-music>
- Morris, I. (2015, February 12). Your streamed albums now count towards the official music chart. *Techradar*. Retrieved July 21, 2015, from <http://www.techradar.com/us/news/audio/your-streamed-albums-now-count-towards-the-official-music-chart-1284416>
- Negus, K. (1993). Plugging and programming: Pop radio and record promotion in Britain and the United States. *Popular Music*, 12(1), 57–68.
- Parker, M. (1991). Reading the charts—Making sense of the Hit Parade. *Popular Music*, 10(2), 205–217.
- Pham, A., & Peoples, G. (2013, April 25). Seven ways iTunes changed the music industry. *Billboard*. Retrieved October 21, 2014, from <http://www.billboard.com/biz/articles/news/1559622/seven-ways-itunes-changed-the-music-industry>
- Robinson, P. (2015, January 16). From uptown funk to all about that bass: What makes a hit count in 2015? *The Guardian*. Retrieved August 18, 2015, from

- <http://www.theguardian.com/music/2015/jan/15/from-uptown-funk-to-all-about-that-bass-what-makes-a-hit-count-in-2015>
- Savage, M. (2015). Album charts to count streamed songs. *BBC*. Retrieved May 11, 2015, from <http://www.bbc.com/news/entertainment-arts-31421438>
- Seabrook, J. (2014, November 24). Revenue streams: Is spotify the music industry's friend or its foe? *New Yorker*. Retrieved May 18, 2015, from <http://www.newyorker.com/magazine/2014/11/24/revenue-streams>
- Sherwin, A. (2013, December 3). Spotify answers Thom Yorke attacks by revealing '\$0.006 per play' royalties figure. *The Independent*. Retrieved December 19, 2014, from <http://www.independent.co.uk/life-style/gadgets-and-tech/spotify-answers-thom-yorke-attacks-by-revealing-0006-per-play-royalties-figure-8980274.html>
- Sherwin, A. (2014, June 23). Music streaming counts towards Top 40 chart for the first time. *The Independent*. Retrieved December 12, 2014, from <http://www.independent.co.uk/arts-entertainment/music/news/music-streaming-counts-towards-top-40-chart-for-the-first-time-9555335.html>
- Shuker, R. (1998). *Popular music: The key concepts*. New York: Routledge.
- Sisario, B. (2014, November 19). Billboard, changing the charts, will count streaming services. *The New York Times*. Retrieved December 12, 2014, from <http://www.nytimes.com/2014/11/20/business/media/billboard-changing-the-charts-will-count-streaming-services-.html>
- Spellman, P. (2002). *The musician's Internet: On-line strategies for success in the music industry*. Boston: Berklee Press.
- Street, J. (1986). *Rebel rock*. Oxford: Blackwell.
- Street, J. (2012). *Music and politics*. Cambridge: Polity.
- Swift, T. (2014, July 7). For Taylor Swift, the future of music is a love story. *The Wall Street Journal*. Retrieved December 19, 2014, from <http://www.wsj.com/articles/for-taylor-swift-the-future-of-music-is-a-love-story-1404763219>
- Thomas, F. (2012, August 23). All tape guide, August 2012. *All Music*. Retrieved December 19, 2014, from <http://www.allmusic.com/blog/post/all-tape-guide-august-2012>
- Toynbee, J. (2000). *Making popular music: Musicians, creativity and institutions*. London: Arnold.
- US Congress. House. Committee on the Judiciary (2000, May 25). United States copyright office and works made for hire. Subcommittee on Courts and Intellectual Property of the Committee on the Judiciary. Retrieved July 20, 2015, from http://commdocs.house.gov/committees/judiciary/hju65223.000/hju65223_0f.htm
- Williams, R. (2015, September 29). Spotify exec: 'Starbucks can do the same job as radio'. *The Telegraph*. Retrieved December 4, 2015, from <http://www.tele->

graph.co.uk/technology/news/11899654/Spotify-exec-Starbucks-can-do-the-same-job-as-radio.html

Wikström, P. (2009). *The music industry*. Cambridge: Polity Press.

Wikström, P. (2013). Commercial success in the music industry. In J. Edmondson (Ed.), *Music in American life: An Encyclopedia of the songs, styles, stars, and stories that shaped our culture* (pp. 256–260). Santa Barbara, CA: Greenwood.

Witt, S. (2015). *How music got free: What happens when an entire generation commits the same crime?* London: The Bodley Head.

Rethinking the Digital Playlist: Mixtapes, Nostalgia and Emotionally Durable Design

Kieran Fenby-Hulse

Nick Hornby's novel *High Fidelity*, first published in 1995, places the cassette and, in particular, the mixtape at the heart of its narrative. For the lead character Rob, the mixtape was a powerful medium in which to communicate with friends and loved ones. As he says:

To me, making a [mix]tape is like writing a letter—there's a lot of erasing and rethinking and starting again ... You've got to kick off with a corker, to hold the attention ... and then you've got to up it a notch, or cool it a notch ... and you can't have two tracks by the same artist side by side, unless you've done the whole thing in pairs and ... oh, there are loads of rules. (Hornby 1996, p. 77)

As highlighted in Hornby's novel, during the 1980s and 1990s mixtapes were a popular means by which to listen to and share music. Functioning as an aesthetic object and a social practice, mixtapes afforded creators an opportunity to showcase their taste in music to others, to curate a collection of music for a specific event or, as in Hornby's novel, to communicate a special message to a loved one. For me, mixtapes were the way in which my friend Sarah and I shared our music collections and introduced each other to new music. Whereas Sarah got to experience my mum's extensive Motown collection and my penchant for female vocalists such

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as Karen Carpenter, Sheryl Crow and Skin from Skunk Anansie, I was introduced to emerging American rock and punk artists like The Dropkick Murphys, The Offspring and The Vandals. The mixtape also provided a means (and a reason) to stay in touch when we went our separate ways. It was a medium that enabled asynchronous communication, before the days of social networking and mobile phones.

Hornby's novel was released at the same time as cassettes began to disappear from high-street stores and, in a sense, could be thought of as a literary farewell to the cassette. By the end of the twentieth century, the cassette had been replaced by the digital compact disc (CD). Although CDs had been commercially available since 1982, it was not until the middle of the 1990s that they became an affordable alternative to the cassette and occupied the central position in many high-street music stores. Hornby's novel (which was turned into a film in 2000) comes at this tipping point in popular music history. Revolving around a record store in London, the narrative is redolent with nostalgia for analogue music listening, the novel referencing cassettes, mixtapes and vinyl records throughout. Hornby's novel is an early example of nostalgia for the mixtape and for analogue music listening practices, coming before the development of peer-to-peer file sharing, the iPod and digital music streaming services. Perhaps more interesting than the novel itself is that this nostalgia has continued into the twenty-first century. Despite the fact that the cassette disappeared from our high streets and the mixtape from our bedrooms more than two decades ago, both remain part of the twenty-first-century cultural imagination. It is the continued references to the mixtape and mixtape culture in the last two decades that are of interest here, references to the mixtape having occurred across a wide range of different media.

For example, in January 2015, BBC4 *Music Extra* dedicated an entire programme to the mixtape. The programme highlighted how 'the cassette age was a temporary window in which the art form of the bedroom briefly shone' and how 'the download has killed off the cassette' ('The Disappearing Art of the Mixtape', 2015). Articles and blog posts have also dedicated space to a discussion of the mixtape and mixtape culture, with pieces written for *Forbes* (2012), *The Guardian* (2015), *The Huffington Post* (2014), *NME* (2014), *The New York Times* (2011) and *The Telegraph* (2014). The mixtape has also been the subject of a number of books, including Thurston Moore's *Mix Tape: The Art of Cassette Culture* (2004), which explores the emergence of the mixtape and the variety of social functions that the mixtape could take on; and Jason Bitner's *Cassette for*

My Ex (2009), which provides an evocative series of mixtape stories and images. In addition, the mixtape has inspired a range of creative outputs. For instance, mixtapes and mixtape culture are used as a romantic plot device in the novel *Nick and Nora's Infinite Playlist* by Rachel Cohn and David Levithan (2006, film version 2008) and in Stephen Chbosky's novel *The Perks of Being a Wallflower* (2009, film version 2012). Similar references to the mixtape are also seen in films such as the Hollywood blockbuster *No Strings Attached* (2011), the Saudi Arabian film *Wadja* (2012) and the Turkish film *Mix Tape* (2014). While movies such as *Without a Paddle* (2004) and *Guardians of the Galaxy* (2014) also reference mixtape culture, the personalised mix takes on a slightly different narrative function. In both of these films, the mixtape is used to hark back to a bygone era of music and music listening, the mixtape functioning as a nostalgic reference point that symbolises either past friendships or familial bonds. In the Broadway musical *Avenue Q* there is an entire song dedicated to the mixtape, which outlines, in comic fashion, its romantic and communicative nature. In addition to these musical references, mixtape culture has been used as inspiration for a number of international art installations and projects. Indeed, mixtape collections and artworks have been exhibited in galleries in Germany (*Cassette Stories*, Museum of Communication in Hamburg, 2003), Australia (*Mix Tape Exhibition*, Tin Shed's Gallery, Darlington, June 2011; *Mix Tape 1980s: Appropriation, Subculture, Critical Style*, National Gallery of Victoria, 2013), the UK (Horace Panter, *The Art of the Mixtape*, The Proud Archivist, London, 2015) and the USA (*MiXTAPE*, Dark Dark Science, Los Angeles, 2012; *You Had Me at Mixtape*, Port City, North Portland, 2013).

More intriguing than these examples, though, are the persistent references to mixtapes in the digital realm. Jamie Cullum's song 'Mixtape' from his 2009 album *The Pursuit* is worthy of note in this respect, as the album was released in digital format (on CD and through platforms such as iTunes and Spotify). The song explores the romantic potential of the mixtape, Cullum describing it as the blueprint of his soul. The reference to mixtapes (and to tape machines) creates a palpable sense of nostalgia by outlining a tension between the analogue narrative and the album's digital format, between form and content, and between analogue past and digital present. Artists such as The Ataris (*Let It Burn*, 2000), Trevor Jackson (*In My Feelings*, 2015) and Lee Brice (*Mixtape: 'Til Summer's Gone*, 2015) have also released songs titled mixtape or mix tape.

The mixtape has, moreover, inspired a number of iPhone applications, websites and digital platforms. For example, the website themixtapemuseum.org provides a dedicated online space in which users can collect, preserve and share knowledge related to mixtape history. By contrast, the website sharemyplaylist.com goes beyond the digital archive and seeks to digitally recreate the mixtape experience. The platform allows users to create and share digital playlists, upload album art and write descriptions of their playlists. Applications such as iMixtape (Netlifestyle Pty Ltd, 2015), Mixtape Maker (R.D. Hare, 2014), and Mixtape (Senstic, 2013) have similarly offered up new ways by which to curate a digital music collection, drawing specifically on mixtape imagery. Perhaps most interesting, though, is the fact that the mixtape's aura has underpinned the development of music streaming services such as Spotify and Apple Music. For instance, in an interview with *The Times* newspaper in 2010, Daniel Ek, co-founder of Spotify, made explicit that Spotify's digital playlists are 'the next generation of mixtapes'. In 2015, the company's development and marketing strategy remains largely the same, although there now seems to be an increasing focus on auto-generated playlists. Following the announcement of its latest personalised playlist, product manager Matthew Ogle described Spotify's 'Discover Weekly' playlist as an attempt 'to make something that felt like your best friend making you a mixtape' (Dredge 2015). The mixtape also underpins Apple's approach to digital music listening. In a patent filed with the US Patent and Trademark Office in 2015 for a feature that would enable users to create and share personalised albums with one another, Apple stated:

[T]he digital age has lost some of the personalization that was available during the analog age. For example, the creation and gifting of a cassette mixed tape was a popular activity between two parties. The compilation of songs would be recorded on a cassette tape and given to another on a special occasion such as a birthday or on Valentine's Day ... While there have been many advancements in the use and distribution of digital music, there is still a need for improved techniques for personalizing gifts of digital music. (Apple Inc 2015)

For Apple, it is the social element to the mixtape, the mixtape-as-gift, that underpins its developmental thinking. The mixtape, it seems, still occupies our musical, visual and technological imaginations and continues to inform developments in the creative, cultural and digital sectors. For Simon Reynolds (2011), this is symptomatic of a much wider cultural

trend. In his opinion, the last decade has witnessed the music industry succumb to an intense kind of archive fever that has resulted in a stifling of creativity. Mourning the loss of a musical present, Reynolds puts forward a view of the modern world as subsumed by an overwhelming preoccupation with the past—a retromania—the mixtape a symbol for a lost era of music listening. The sustained references to the mixtape beg a number of questions, such as why do mixtapes remain a cultural reference point in this modern digital age; why is the analogue past ‘haunting’ the digital present; and how might a study of mixtape and mixtape listening help us to understand music listening practices today and to develop new approaches to designing digital music services? By examining the mixtape as a social practice and from the perspective of emotionally durable design, this chapter will show how nostalgic accounts and contemporary references to the mixtape can inform approaches to digital music listening and contemporary listening practices.

11.1 A MIXTAPE HISTORY

It seems sensible to begin with a brief history of the mixtape to identify what it was that people valued—and still value—about this musical format. The mixtape was primarily a way to share music. Both an artefact and a social activity, mixtapes consisted of a carefully crafted sequence of musical tracks that were used to accompany a specific event or activity, or to communicate a musical message to a friend or loved one. In this sense, they were both an affordable and a powerful means of communication. The perfect mixtape, though, was not easy to create and required both skill and meticulous planning, as the character Rob from Nick Hornby’s novel describes earlier. Mixtapes required the creator to think about what songs to include, how they were to be ordered and what the cover art might look like to ensure that the message they sought to communicate was understood as intended by their friend or lover. In short, mixtapes were a means of aesthetic communication, the cassette (and its casing and inlay) a medium by which to tell a musical and visual story.

Jason Bitner’s (2009) book *Cassette for My Ex* provides a fascinating insight into the social and cultural value attributed to the mixtape. Consisting of a series of mixtape stories told some 10–20 years after these mixtapes were created, Bitner’s collection shows how mixtapes as social artefacts have the power to draw out forgotten memories and enable listeners to reflect, reframe and in some cases idealise their musical pasts. The

mixtape story told by Jessica Agneessens provides a particularly interesting example in this respect. She writes:

The tape was an early birthday gift—I'd be in my new city by the time I actually turned 21—she intended on me listening to it on the drive. It was terrible to say good-bye ... The liner notes stated that it would be a while before she could visit. She blamed her class schedule but the sharp edge of that repeated declaration suggested how abandoned she felt by my departure. I played the tape repeatedly on the drive to the Midwest and for a long time after. The mix wasn't much different from what my peers were listening to, but it was a far cry from that which my peers in Eugene had been listening to ... The Pixie had done me a great service, she had prepared me for life outside Eugene. It became the soundtrack to my awkward adjustment to a new town and eventually to my grandfather's death. (Bitner 2009, p. 115)

Agneessens' story highlights the social power of the mixtape. It shows how the personality of the receiver and the creator are both imprinted on the mixtape—and perhaps also how a mixtape can be re-imagined and re-framed by the owner as time moves on. Agneessens' mixtape contains considerable artist repetition (both Sonic Youth and Sebadoh featuring three times) and much of the music is of a similar generic ilk (the majority of the music has a rock or DIY feel, Stereolab and Bowie being notable exceptions). The mixtape also contains some tracks that might now be referred to as rarities, a reflection of the creator's bespoke music collection. It is the careful selection and curation of tracks, though, that furnish the mixtape with its emotional power (Table 11.1).

Indeed, the mixtape includes tracks that address issues of love, friendship and loss (Belle and Sebastian's 'Get Me Away from Here, I'm Dying'; Cat Power's 'The Coat Is Always On'; The Rolling Stones' 'She's a Rainbow'; and Sentridoh and Lou Barlow's 'I Will Be Lonely All My Life'), providing the tape with an overarching meta-narrative of loss and frustration. Agneessens' social and narrative reading of her mixtape aligns with this analysis. The visual and craft element to the mixtape, its communicative power, as well as its material, personal and social histories also contribute to the mixtape's emotional power, something that is echoed throughout Bitner's collection. Similar mixtape accounts can be found on *The Guardian* website following a call to share stories in January 2014. As one contributor to the site recounts:

Table 11.1 Track listing for mixtape sent to Jessica Agneessens

<i>Songs by Hollow Men (+ Women)</i>	
<i>Side A</i>	<i>Side B</i>
Sonic Youth: Crème Brûlée	Sonic Youth: Androgynous Mind
Fiona Apple: Paper Bag	Lou Barlow: Cause for Celebration
Modest Mouse: 3rd Planet	Quasi: Our Happiness Is Guaranteed
Sebadoh: Narrow Stories	Cat Power: The Coat Is Always On
Sebadoh: Punch in the Nose	Iron and Wine: March 25th 1988
Yo La Tengo: Cast a Shadow	Modest Mouse: Styrofoam Boots/It's All Nice on Ice, Alright
Cat Power: Back of Your Head	The Halo Benders: On a Tip
Belle and Sebastian: Get Me Away from Here, I'm Dying	Yo La Tengo: Center of Gravity
The Rolling Stones: Beast of Burden	Built to Spill: Car
Sonic Youth: Sunday	The Rolling Stones: She's a Rainbow
Stereolab: Come and Play in the Milky Night	David Bowie: Ziggy Stardust
Sebadoh: Skull	Jets to Brazil: Conrad
The Spinanes: Sukers Trial	Sentridoh and Lou Barlow: I Will Be Lonely All My Life
Pavement: Grounded	
The Sea and Cake: The Biz	

Taken from Bitner (2009, p. 115)

we had a great habit of making mix tapes for each other in our circle of friends. It was a great way of showing affection, but also keeping them up to date with what was going on in our lives when we all went away from each other to work or to university. (Bausells 2014)

For Bas Jansen, it is important to differentiate between the mixtape as ‘a form of sculpting self-identity’ by the creator and the subsequent narratives about mixtaping that ‘construct a coherent story about a former self—in hindsight’ (Jansen 2009, p. 44). For Jansen, ‘although old mix tapes clearly have a strong tendency to evoke storytelling behaviour, they are not themselves stories ... mix tapes are non-narrative artefacts that preserve the mix tapers-being-in-connection-with his or her immediate surrounds; whereas mix tape stories are retrospective narrative accounts’ (Jansen, 52). To my mind, though, the mixtape is not simply an *aide-mémoire*, but an aesthetic object that is infused with musical and visual symbols that encourage and inform a narrative reading by the recipient-

listener. Indeed, the title, musical genres, songs and artists contained within the tape; the album art, time and place of making; and the extra-musical information that may have been supplied furnish the mixtape with a series of narrative prompts. The visual and aural clues, inscribed on the mixtape by the creator, provide the recipient with an aesthetic experience and narrative journey. The mixtape, then, is not simply a medium, but a communicative object that acts on its recipient, whether that is at the time of receiving the gift or when revisiting the tape years later. By considering the mixtape from this aesthetic perspective, the value that many ascribe to the mixtape perhaps becomes clearer, a point to which I will return later.

11.2 DIGITAL DEVELOPMENTS

As the twentieth century came to its close, the mixtape began to disappear. This was a result of CDs becoming a more affordable medium by which to share music and because of increasing access to the Internet at home. The mix-CD took over from the mixtape as the main means by which to share music with others. While this move from analogue to digital may not seem that significant, the fact that mix-CDs could be created by simply dragging and dropping files, rather than through a lengthy process of simultaneous real-time recording and listening, meant that the slower, craft-like process attributed to making mixtapes began to disappear. The speed by which playlists could be created was complemented by the rapid development of peer-to-peer file sharing. File sharing provided Internet users with access to a diverse and global library of music. Although the practice violated copyright laws, platforms such as Napster and Limewire offered users a quick and easy way to access new, rare and international music (the legacy of these technologies is discussed in more detail in Chap. 4, this volume). With users now able to download almost any track they wanted within a short time span, mix-CDs were no longer dependent on and determined by the contents of the limited material music collection of the maker. In short, some of the characteristic constraints involved in making a mixtape were removed by the development of new digital technologies and associated listening practices.

The introduction of the iPod in 2001 and the option to purchase single tracks rather than albums through Apple's iTunes platform, which was launched in 2003, took the digital playlist to the next level and provided a legal route by which to create diverse digital playlists. Aware of the popularity of creating mix-CDs and the desire to share music (and musical

identities), Apple provided users with the opportunity to create digital playlists from their iTunes library and to share them across a network or upload them to their iPods. The digital playlist was born and users were able to manipulate their music collections and create multiple and bespoke playlists with ease. As music journalist Dylan Jones says:

Albums ceased to matter, and I could edit with impunity. Why bother with REM's *New Adventures in Hi-Fi* when all you really want is *Electrolite* and *E-Bow The Letter*? Why continue to ruin *Pet Sounds*, the best album recorded by anyone in the 1960s, by suffering the absurdity of *Sloop* John B when you can simply delete it. (Jones 2006, p. 18)

iTunes afforded users the opportunity not only to create a purely personal library of music at the level of the music track, but also to curate their music collection as they saw fit through the use of user-friendly drag-and-drop digital playlists. As Jones notes, albums could be easily tweaked and adapted, and playlists created to suit any mood, activity or event. Interestingly, though, and in contrast to the cassette-based mixtape, the iPod encouraged a listening experience that was self-directed and primarily personal. The inherent social nature of the mixtape had somehow got lost in analogue-to-digital translation, something that is perhaps evident from Apple's early iPod commercials, where the silhouetted figures, each with headphones plugged in, dance to their personal music collection. The visual and aural detachment of the silhouetted figures emphasises the private musical experience that the iPod offered. For Michael Bull, the iPod revolutionised music listening through its portability and focus on personalised musical experiences. As he states, 'technologies such as iPods, mobile phones, and automobiles act as tools enabling the urban citizen to move through the chilly spaces of urban culture wrapped in a cocoon of communicative warmth whilst further contributing to the chill that surrounds them' (Bull 2007, p. 18). By enabling users to create an array of playlists to cater for every possible situation, the iPod provided them with a familiar and safe auditory space in which to escape from busy city life.

The more recent development of broadband Internet has enabled streaming services such as Spotify, Amazon Music, Pandora and Tidal to further the music service model proposed by iTunes. Through a subscription-based service, these music streaming services provide users with access to a vast archive of music on demand. Spotify is currently one of the most widely used platforms. As the mixtape underpins much of the

company's marketing and research and development activities, it is worthy of more detailed exploration here.

Spotify's mission is to transform the music listening experience through the development of auto-generated playlists, user recommendations and the employment of expert music curators to help users navigate an increasingly global library of music. The curation of content by both experts and users is crucial to Spotify's business model. As well as providing users with the ability to create personalised playlists, the Spotify platform also allows them to search through a whole range of playlists that have been curated by genre, mood and increasingly social function. While the company explicitly acknowledges the mixtape and its history in its press releases, the listening experience that it offers is actually radically different from that of the mixtape and seems to revolve more around activity-based listening or functional music than enabling a shared listening and social experience. For example, its featured playlists, which are curated by in-house 'music programmers', are aligned to the time of day and time of year, as well as to seasonal events and/or occasions. On Sunday morning, for example, the recommended playlists might include 'Sunday Morning Coffee' or 'Soulful Morning'. On a Friday evening, the playlists 'Club Dance Hits' or 'Totally Tropical House' are more likely to be featured.

The ways in which Spotify users create playlists also seem to differ from how people approached making a mixtape. For example, there are user-created playlists for sleeping, going to the gym, doing the washing up, as well as for seasonal events and parties. Even those that attempt to emulate the mixtape experience are often much longer (6 hours, say, as opposed to 60 or 90 minutes) and, more often than not, feature a huge array of musical genres. A playlist developed by user Robert Sanchez, for example, is almost 17 hours in length and contains tracks by artists as diverse as Nirvana, Eminem, Donny Osmond, Daft Punk, Michael Jackson and the close harmony group Pentatonix. Similarly, user DavidK-3's 'Love Mixtape' contains tracks by The Temptations, Elvis Presley, Ed Sheeran, Maroon 5 and The Police and lasts over 5 hours. These playlists stand in stark contrast to the limited musical diversity of a mixtape, which was dependent on the creator's physical music library as well as tracks that they had been able to record from the radio. The creator of the digital playlist also seems to reside further in the background, with Spotify users only able to provide a playlist title. It is currently not possible to give descriptions, write blurbs, or upload album art. This makes the playlist seemingly less tailored to the recipient and, as such, more open to interpretation, thus offering a stark contrast to the carefully planned and intense narrative trajectory of a mixtape.

11.3 LOST IN TRANSLATION

In a way, it seems the social aspect of the mixtape has been lost and this appears to be a direct result of the affordances provided by emerging digital music platforms. As the arts editor to the *Cornell Daily Sun* bemoans:

[A]mong the greatest of my golden-age-thinking regrets is probably that I'll never make a mixtape. Despite the cliché it's ultimately become, there is still something affectingly enchanting for me about the practice of making and exchanging mixtapes. The love labor of meticulously selecting and ordering songs, whether in a narrative arc or affirming one theme or mood, to create a musical experience greater and more meaningful than the sum of its parts; to express something that simply could not be said by one song alone via a small plastic rectangle is sort of incredible, and certainly romantic. (2015)

For the author of this article, although the mixtape's time is past, its legacy weighs heavily. While Reynolds would, no doubt, see this article as symptomatic of our increasing preoccupation with the past, its author's nostalgia can also be read as a critique of current listening practices. As Dominik Schrey has observed, 'nostalgia for seemingly obsolete modes of representation is a way of theorising changes in media' (Schrey 2014, p. 29). This newspaper article, then, can be understood in two ways. It can be seen as an overt longing for a lost, analogue musical past, but also as a challenge to the way in which music is consumed and experienced today, its author highlighting a lack in current media provision. For Svetlana Boym, nostalgia can be understood as restorative and/or reflective. Restorative nostalgia 'puts emphasis on *nostos* and proposes to rebuild the lost home and patch up the memory gaps' (Boym 2001, p. 41). The danger here, of course, is that the nostalgia focuses more on loss. Reflective nostalgia, by contrast, focuses not on the 'recovery of what is perceived to be an absolute truth but on the mediation on history and passage of time' (Boym 2001, p. 49). The 'retromania' that Reynolds discusses in his book thus need not be understood as signalling inevitable decline within the music industry, but rather as a critique of current media and artistic practices. The nostalgia for mixtapes outlined here, then, provides us with an incredibly useful commentary on music listening practices and an insight into what values are associated with and attributed to music listening practices of the past.

For the author of the article in the *Daily Cornell Sun*, current digital platforms render the physical and creative effort required to make a playlist no longer evident to the recipient; the human, craft element

is invisible. As the mixtape was necessarily based on the music you had in your record collection or the music you were able to source from the radio stations to which you listened, it was necessarily representative of music in which you had a personal (and often financial) investment; as the mixtape required you to sit, select and listen to the tracks as they recorded, the process of making it became embedded in the way in which it was experienced; and as blank cassettes came with blank inlays, the mixtape also afforded the creator the opportunity to create a handwritten inlay and cover design. The affordances offered by digital technologies have caused the digitised mixtape to lose some of its most characteristic features.

11.4 EMOTIONALLY DURABLE DESIGNS

From a design perspective, the aesthetic, craft-like process that underpins the making of a mixtape is worthy of further consideration, as it offers a unique example of ‘emotionally durable design’. A term developed by design theorist Jonathan Chapman (2005), emotionally durable design offers a potential solution to hyper-consumerism and increasing waste. Arguing that ‘emotionally durable design’ has the potential to transport users beyond the ephemeral world of technocentric design, Chapman’s research examines how ideas of narrative, attachment, enchantment, surface and consciousness can be embedded into the design process to enable users to have longer-lasting and more significant emotional connections with their purchases. By connecting the memories and musical personality of both the creator and the receiver, the mixtape is an artefact filled with enchantment—a connection established almost immediately between object and user. The emotional attachment is heightened by the fact that the mixtape brings together an aural experience with a haptic and visual one. Indeed, the inlay, the tape and the casing all form part of the mixtape experience. Like the experience often attributed to vinyl records (Bartmanski and Woodward 2015), mixtapes are as much about looking, touching and sharing as they are about listening.

The aesthetic and social nature of the mixtape seems to provide design theory with the perfect example of an emotionally durable object. Although intensely personal, both the form and context of the mixtape are open to reinterpretation and change, the mixtape evolving and changing with the attitudes and context of the listener, as well as in response to larger cultural changes pertaining to music genres and artists. Providing a haptic

and sonic experience that combines creativity with craft, the mixtape also provides a material and sonic space that allows creators and listeners to explore identity politics and forge an identity (or series of identities) in relation to the social groups in which they participate and interact. The challenge that we face now is how to translate the haptic, material and sonic experience of the mixtape into the digital realm. Indeed, how can we use Web 2.0 technologies to enhance digital music platforms so that they go beyond a mere musical library or archive and enable new types of social engagement and creativity? In short, when developing digital environments, how do we ensure that we are thinking not only about storage and broadcast, but also about interaction and creativity?

Unlike the mixtape, which would fade and warp with time, acquiring marks, chips and stains reminiscent of experiences or occasions, a digital playlist is 'clean'. Playlists can be edited, removed or deleted; there are no digital traces of the playlist's past. In a way, the playlist has no history and no place. I have no idea when playlists were created, whether and what alterations have been made (by myself or another user) and relatively little information on who created them or who has listened to them. There are no reminders as to where and when I first listened to that playlist, or who I shared that musical experience with. Digital music playlists, at present, appear to be functional in nature. They provide a simple and effective way of accessing musical content that is curated to suit a range of situations, whether that be the gym, a party or work. They are rarely creative undertakings or acts of identity performance.

The primacy given to the technological state of the art rather than the relationship between subject and object is a concern for Chapman, who warns that 'in migrating toward the virtual, we become in danger of subscribing to an experience-impoverished future: an immaterial world of trite engagements with anonymous objects, devoid of qualitative user experiences' (Chapman 2005, p. 96). Digital environments, then, need to go beyond creating rigid digital archives and recreating analogue experiences, and create truly new, creative digital experiences. We need to go beyond the screen and develop digital environments that are haptic and sensory. Music platforms such as Spotify, for instance, need to go beyond simply offering a library of music and *playlists* and provide musical experiences that have a sense of history and of performance, experiences that enable users to forge or affirm social connections, actively encouraging emotional attachment.

By looking at the mixtape and comparing it with the development of the digital playlist, I hope to have shown that the recent resurgence in mixtape culture need not be understood as a restorative, nostalgic turn to a bygone analogue era, but can be seen as a reflective challenge to contemporary listening practices. Mixtape nostalgia asks us to rethink how digitally mediated environments currently operate. It is a challenge to the digital archive, and an invitation to seek out new ways to creatively engage online and listen to music. Indeed, as we seek to archive, record and document, and to share as much about our lives as possible online, we need to constantly question the format by which we share these digital memories. We need to reflect on what we value about material culture and material interaction so that we can ensure that digital developments enhance our analogue pasts. To do this, we need to think more about enabling craft and creativity within digital environments.

For David Gauntlett, one of the cornerstones of craft activity is that the human element is evident in the finished product. Digital environments and platforms are forever in danger of concealing the human element though their perceived ‘polished’ appearance. As Gauntlett argues, one of the key features of MySpace was that it enabled users to create templates and personalise their musical online space. At present, Spotify functions much like a library or archive of musical tracks. Although it allows users to upload profile pictures (usually imported from Facebook), create and share playlists and follow artists and other users, the platform seems less concerned with community and interaction than it is with curation, or what might be described as content control. By focusing on the employment of expert curators and the profiling of particular types of playlist, Spotify is in danger of offering a homogenised rather than personalised music experience. If the mixtape was about communicating with a specific friend or loved one, Spotify is currently about communicating with an impersonal global world. And this is perhaps epitomised by product manager Matthew Ogle’s comment noted earlier that Spotify’s new playlist aims ‘to make something that *felt* like your best friend making you a mixtape’ (*italics my own*).

For Reynolds, digital music services are in danger of flattening ‘the differences and divisions from music history’ (Reynolds 2011, p. 360). They are also in danger of rendering invisible the user’s own creativity and musical identity, reducing them to a profile photo, user playlists and a series of recently heard tracks and albums, all within a standardised template. By contrast, the cassette has proved to be a pow-

erful political medium (Ball 2011; Manual 2001). Operating outside online censorship and surveillance, the cassette enabled both artists and listeners to challenge the music industry and the idea of consumer culture. Although speaking specifically about the mixtape associated with emerging and underground hip-hop artists, Ball's argument is of particular relevance here:

despite being products of modern mass-media technology, [mixtapes] have a method and a network of distribution that is bottom-up as opposed to top-down ... And while they do face some levels of cost prohibition regarding production and distribution, mixtapes offer communities on the other sides of that 'digital divide' a reach that is equal to and more legal than low-power or 'pirated' forms of radio (Ball 2011, p. 17).

While digital music platforms have offered a solution to digital piracy, they are rigid in their structure and outlook, providing a prepackaged and predominantly Western approach to music listening. Issues of access, ethics, power and culture, as well as issues of individual creativity and expression, have yet to be sufficiently addressed by digital music providers.

This theoretical comparison of the mixtape with the digital playlist suggests that a more detailed, qualitative exploration of the creative and social processes associated with both mixtapes and playlists could provide us with significant insights into contemporary attitudes towards not only music listening, but also identity formation and storytelling, insights that could radically alter the way in which online music listening platforms are designed and perhaps also how musical content is generated. While it may seem that digital playlists are, at present, created for personal use (and not intended to foster intimate connections with close friends and loved ones like the mixtape), they are also frequently shared, via Spotify and other media such as Facebook and Twitter, and consumed by peer groups and colleagues as well as strangers from across the globe. For Sonia Livingstone:

Although it indeed appears that, for many young people, social networking is 'all about me, me, me', this need not imply a narcissistic self-absorption. Rather, following Mead's (1934) fundamental distinction between the 'I' and the 'me' as twin aspects of the self, social networking is about 'me' in the sense that it reveals the self embedded in the peer group, as known to and represented by others, rather than the private 'I' known best by oneself. (2012, p. 44)

Like the mixtape, the digital playlist combines an act of music listening with an act of storytelling. We need, though, to better understand what storytelling means in this digital context. We need to better understand the complex relationship between maker—medium—and consumer. As Gauntlett (2011) has argued, while Web 2.0 offers an opportunity for enabling creative and social interactions, there is a danger that platforms can stifle creativity and inhibit active engagement if they are not developed with a sense of community and storytelling in mind. Indeed, we need to go beyond a view of digital storytelling as broadcast and think about it in terms of emotional connections and identity formation.

Platforms such as Spotify, Tidal and Pandora are still at the early stages of development and new competitors are entering the market, including Amazon Music and Apple Music. Through a theoretical and critical exploration of the affordances and limitations of digital music platforms in relation to the mixtape, I hope to have provided a provocation to the music industry (and to those studying popular music practices and music consumption) to consider the importance of the digital listening experience, as it connects music to music history, solitary listening to social interaction, as well as narrative to memory. There is much room for growth. There is potential to develop and design listening experiences that are fundamentally creative and social and that are emotionally durable. Digital music platforms have the potential to foster individual identity expression, and to connect listeners not only to the music, but to the artists, to music history, to their friends and colleagues and, perhaps, to much broader social, cultural and commercial contexts and issues (something that Prey discusses in Chap. 3 in this collection). In sum, we now need to consider how to go beyond music as listening and think about music as a dynamic and social experience that is creative, haptic, performative, immersive and embodied.

BIBLIOGRAPHY

- Ahmed, M. (2010, April 27). Internet music service spots gap in the market for next generation of mixtapes. *The Times*. Print: 18.
- Apple Inc. (2015, April 16). *Digital mixed tapes*. United States Patent Application 14/688,673. Retrieved September 5, 2015, from <http://pdfaiw.uspto.gov>
- Ball, J. (2011). *I mix what i like: A mixtape Manifesto*. Oakland: AK Press.
- Bartmanski, D., & Woodward, I. (2015). *Vinyl: The analogue record in the digital age*. London: Bloomsbury Academic.

- Bausells, M. (2014, November 20). Your mixtape stories: Share your memories and pictures. *Guardian Witness*. Retrieved September 5, 2015, from <http://www.theguardian.com/stage/2014/nov/20/your-mixtape-stories-share-your-memories-and-pictures>
- Biggs, J. (2011, October 27). The mixtape is back! *New York Times*. Retrieved September 5, 2015, from http://www.nytimes.com/2010/04/25/magazine/25fob-consumed-t.html?_r=0
- Bitner, J. (2009). *Cassette for My Ex*. New York: St Martin's Griffin.
- Boym, S. (2001). *The future of Nostalgia*. New York: Basic Books.
- Bull, M. (2007). *Sound moves: ipod culture and urban experience*. Abingdon: Routledge.
- Catalano, M. (2012, December 23). The lost art of the mixtape. *Forbes*. Retrieved September 5, 2015, from <http://www.forbes.com/sites/michelecatano/2012/12/23/the-lost-art-of-the-mixtape>
- Chapman, J. (2005). *Emotionally durable design: objects, experiences and empathy*. London: Earthscan.
- Csathy, P. (2014, July 11). The lost art of the mix tape. *The Huffington Post*. Retrieved September 5, 2015, from http://www.huffingtonpost.com/peter-csathy/the-lost-art-of-the-mix-t_b_6121716.html
- Dredge, S. (2015, July 20). Spotify bites back at Apple Music with weekly 'mixtape' playlist for each user. *Guardian*. Retrieved September 5, 2015, from <http://www.theguardian.com/technology/2015/jul/20/spotify-apple-music-weekly-mixtape-playlist>
- Gauntlett, D. (2011). *Making is connecting: The social meaning of creativity, from DIY and knitting to YouTube and Web 2.0*. Cambridge: Polity Press.
- Hogan, M. (2014, October 24). The mixtape will always have a place in my music collection. *The Telegraph*. Retrieved September 5, 2015, from <http://www.telegraph.co.uk/men/the-filter/11184929/The-mixtape-will-always-have-a-place-in-my-music-collection.html>
- Hornby, N. (1996). *High fidelity*. London: Indigo Press.
- Jansen, B. (2009). Tape cassettes and former selves: How mix tapes mediate memories. In K. Bijsterveld & J. van Dijck (Eds.), *Sound souvenirs: Audio technologies, memory and cultural practices* (pp. 43–54). Amsterdam: Amsterdam University Press.
- Jones, D. (2006). *iPod, therefore I am*. London: Phoenix.
- Khomani, N. (2014, November 3). Kurt Cobain's previously unheard 1986 mixtape unearthed—Listen. *New Musical Express*. Retrieved September 5, 2015, from <http://www.nme.com/news/kurt-cobain/80818#1xzbvd2JRP2gJPQX.99NME>
- Livingstone, S. (2012). Taking risky opportunities in youthful content creation: teenagers' use of social networking sites for intimacy, privacy, and self expression. In L. Chouliaraki (Ed), *Self-mediation: New media, citizenship and civil selves* (pp. 39–54). London: Routledge.

- Manual, P. (2001). *Cassette culture: Popular music and technology in North India*. New Delhi: Oxford University Press.
- ‘Mixtapes I’ll Never Make You’. (2015, March 12). *Cornell daily sun*. Retrieved September 5, 2015, from <http://cornellsun.com/blog/2015/03/12/goldfine-mixtapes-ill-never-make-you>
- Moore, T. (2004). *Mix tape: The art of cassette culture*. Universe Publishing.
- Reynolds, S. (2011). *Retromania*. London: Faber and Faber.
- Schrey, D. (2014). Analogue Nostalgia and the Aesthetics of digital remediation. In *Media and Nostalgia: Yearning for the past, present and future* (pp. 27–38). Basingstoke: Palgrave Macmillan.
- The Disappearing Art of the Mixtape. (2015, January 6). [radio] BBC4 Extra. 0230. Summary description available from the BBC website: Retrieved September 5, 2015, from <http://www.bbc.co.uk/programmes/b00cj8d8>

A Song for Ireland? Policy Discourse and Wealth Generation in the Music Industry in the Context of Digital Upheavals and Economic Crisis

Jim Rogers and Anthony Cawley

The words ‘music industry’ and ‘crisis’ have a strong association in news media reporting of and corporate discourse on the digital economy, while at the same time governmental actors have been positioning music among the creative industries identified as potential sites of wealth creation. Consideration of the threats, opportunities and upheavals facing the music industry in the digital economy has tended to be filtered through a technological lens. However, the global economic crisis that emerged in the late 2000s has demonstrated that the new potentialities arising for the music industry cannot be viewed narrowly as technologically driven, and must be assessed in wider economic, political, corporate and cultural contexts. On the one hand, the widespread diffusion of online and mobile innovations holds the capacity to seriously disrupt traditional music industry struc-

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tures, commercial practices and distribution models. On the other, these disruptions play out in the context of a wider set of processes in which the same technologies can also be seen to reinforce long-established media corporate control and concentration.

In light of this, we outline how global-level strategies adopted by the major labels in terms of modifying their practices and reorganising their core structures have served to consolidate their dominant position in the Irish market in the digital era. Of particular interest here is how, in an increasingly digital operating environment, music industry restructuring has facilitated the expatriation of revenues and wealth out of the local national economy. This runs counter to the ambitions of longstanding Irish government policy discourse and strategies to stimulate greater contributions from the music business to the Irish economy, and is rarely, if ever, acknowledged in official policy lines. The imperative to grow returns from the music industry took on greater urgency in the late 2000s when, in the context of a national economic crisis, the government began promoting domestic recovery through a knowledge-based (Smart) economy framework that included music under the broader label of creative industries.

Central to processes reshaping the music industry in Ireland, as elsewhere, has been increasing gravitation towards licensing and services, including copyright, trademarks and evolving forms of music brand partnerships. The heavier application of legal instruments in the form of intellectual property rights (IPR) regimes goes some way towards explaining the gap between music's economic activity in and benefits to national and local economies. Interrogating the disconnect between revenue generation and local returns requires us to provide an overview of Ireland's macro-economic context, as well as specific knowledge economy policy discourses in recent decades, and to locate the place of music and IPRs within the same. To illustrate this further, our study draws on a series of original interviews with stakeholders and informants spanning a comprehensive range of music sectors in Ireland.

Our findings challenge the logic and received wisdom underpinning dominant industry, governmental policy and popular media discourse on the fortunes of the music industry in the digital era and its value as part of a knowledge economy policy response to recent global and national economic crises. Moreover, our research highlights growing contradictions between the IPR policies espoused and pursued by successive Irish governments and the economic returns of core music industry players to

the national economy. As we illustrate (and perhaps reflecting the predicament of other small countries), a string of reports (state and industry alike) produced over the past twenty-five years on the music industry and also wider information sector increasingly highlight the importance of a strong and robust copyright framework to maximising the growth of cultural sectors and the contribution of culture to the national economy. Yet in the case of the music industry, the vast majority of revenues generated through copyright are expatriated. In essence, we argue that a key implication of music copyright policy in the Irish context is to direct millions of euros out of the national economy on an annual basis.

12.1 ECONOMIC CRISIS AND THE NEW SIGNIFICANCE OF CREATIVE INDUSTRIES AND COPYRIGHT

We are not only living in an increasingly informational society or a more technological society, but a *neoliberal* information society. It is necessary, therefore, to consider macro-level political economic trends, alongside recent technological changes, as influencing the evolution of the music industry.

In the context of the global economic crisis of the 1970s and 1980s, the once marginalised classical libertarian ideas of such thinkers as Friedrich von Hayek and Ludwig von Mises gained fresh currency and evolved to shape the dominant political paradigm. With the emphasis on deregulation, privatisation and the intensified foregrounding of free-market ideology as the cure for all of society's ills, neoliberalism took root at the heart of policy regimes around the world.

Within this, capital's response to this period of economic turmoil can, in part, be characterised by a significant shift in investment strategies towards service sectors (see, for example, Hesmondhalgh 2013), with culture and information becoming increasingly important sites of economic activity, and IPRs sitting at the heart of expansion in these domains.

It is within this neoliberal context that the Irish economy underwent radical transformation. The country's economic performance until the 1990s paints a dismal picture. For historian J.J. Lee: 'No other European country, east or west, north or south, for which remotely reliable evidence exists, has recorded so slow a rate of growth of national income in the twentieth century' (1989, p. 515). However, through the Celtic Tiger years (broadly, mid-1990s to mid-2000s), Ireland evolved from the eco-

conomic doldrums to become one of the wealthiest countries in the world. In an environment where social spending was slashed, corporation tax lowered and income tax rates cut by successive governments, Ireland became a glowing example of the success of free-market ideology. However, as O'Toole stresses, Ireland should not be regarded as exceptional or remarkable. Rather, what is interesting is that it evolved as an 'extreme case of a phenomenon that touches every part of the world: globalization' (2004, p. 3). As a site of foreign direct investment and expanding international trade volumes, Ireland became 'unusually globalized ... the star performer of globalization' (ibid., p. 5). Since *Foreign Policy* magazine and management consultancy A.T. Kearney first published their annual globalisation index in 2001, Ireland has consistently featured as one of the most globalised countries in the world in terms of the flow of trade and investment, technological connectedness (for example, number of Internet users/hosts) and international communications (including telephone traffic). In some years, according to this index, it has been *the* most globalised territory.

It was within Ireland's Celtic Tiger period of unprecedented economic growth that the country's policies related to an information society and knowledge economy (which embraced the creative industries) took shape. The *Information Society Ireland: Strategy for Action* report was published in 1997, after which two Information Society Commissions were appointed to advise government on strategies and policies related to innovation, knowledge and the economy. The first Commission ran from 1997 to 2000, and the second from 2001 to 2004. The two Commissions tended to have an unproblematic conceptualisation of the information society and adopted a technology-led approach to innovation, with a particular emphasis on improving infrastructures. The importance of associated social innovations tended to be neglected, however.

In the late 1990s, as Irish information society discourse was first stirring, developments around new digital technologies were being linked to the music sector. For example, Ireland's Industrial Development Authority commissioned a report entitled *Multimedia Ireland: Realising the Potential*, which recommended '[e]xploiting the opportunities for cross-fertilization between the established film and music industries and the multimedia industry' (Forbairt and IDA 1997, p. 20).

In Ireland, policy discourse on digital media tended to echo the creative industries language emanating from the UK in the late 1990s and the wider EU in the early 2000s (EC 2005). Digital media were identified

by Irish state agencies as a creative sector holding strong potential for job and wealth creation nationally. In many respects, this focus was embodied in the development of the Digital Hub (as a centre for digital media companies and activities) in Dublin, as well as in a failed initiative to replicate Nicolas Negroponte's USA-based Media Lab in the guise of Media Lab Europe.

A 2002 report by state agency Forfás (the former national policy advisory board for enterprise, science, technology and innovation), entitled *A Strategy for the Digital Content Industry in Ireland*, identified what it termed eMusic as among the promising 'digital content market sectors' (Forfás 2002, p. 4). A later report by Ireland's then state training and employment authority, FAS (2004), also pointed to the potential of eMusic, and noted a growing demand among consumers for 'access to music via mobile devices' (FAS 2004, p. 92). While these policy discourses tended to separate digital music possibilities from the traditional music industry, they did point to new possibilities for generating wealth from music in a digitised commodity form.

As Kerr and Cawley (2012) highlight, Irish state agencies at this point had not yet formally adopted creative industries terminology, but such initiatives and discourse were occurring in the context of a thriving economy. In 2008, however, the Irish economy descended into crisis on the back of, among other factors, the bursting of a property bubble and a banking sector emergency. That year, in a government response to the deteriorating economic situation, information society discourse took a turn to what was termed a Smart Economy. In a report entitled *Building's Ireland's Smart Economy: A Framework for Sustainable Economic Renewal*, the government formally adopted creative industries and knowledge economy terminology, which was surprising given the document's heading of 'Smart' Economy. The report argued that '[c]reative industries are also a key driver of the digital and knowledge economy' (Department of the Taoiseach 2008, p. 80). The government promised to 'support the creative industries and film/media which have a key role in driving and enabling technological convergence across platforms' (Department of the Taoiseach 2008, p. 67). Yet reflecting critiques made elsewhere of creative industries discourse, the Smart Economy's conceptualisation and classification of constituent industries was vague and seemingly arbitrary (see Cunningham 2009; Kerr and Cawley 2012; Preston et al. 2009).

Despite positioning creative and media industries as a pillar of the country's economic renewal, the Smart Economy document contained

few specifics on the supports that would be available or on policy instruments that would guide the development of these sectors in the context of the country's recession. Despite being eight years old (at the time of writing), the Smart Economy document remains the current framework report for the renewal of the Irish economy.

An interesting subtext to this report was the stress that it placed on robust copyright and intellectual property regimes to enable the creative industries to fulfil their wealth-creation potential. The report argued that for creative industries, 'intellectual property protection and commercialization are top priorities. The creative industries cannot survive in the marketplace without adequate protection from copyright infringement' (Department of the Taoiseach 2008, p. 80). The welding of creative industries' revenue-generation potential to the need to put in place secure copyright/IP frameworks was also evident in a report published by Dublin City Council two years later. The *Defining and Valuing Dublin's Creative Industries* document said: 'All [Arts, Cultural Industries, Creative Industries] outputs embody ideas, values and creativity which become concrete and tradable once protected by copyright' (DCC 2010, p. 15).

The broad definition of creative industries in both documents included the music sector. Reflecting how entrenched narrowly conceptualised copyright arguments have become in policy thinking, a similar discursive pattern emerged in a more recent report on supporting and stimulating greater digital engagement among citizens and business: *Doing More with Digital: National Digital Strategy for Ireland* (2013). While not referring directly to creative industries or the music sector, the report identified as an objective 'copyright and the need to have in place an appropriate infrastructure to support the growth of the digital agenda' (DCENR 2013, p. 35). In seeking to tighten the connection between digital content and IP/copyright, its position was consistent with discourse emerging more directly from music industry stakeholders.

The Celtic Tiger years also saw a steady stream of music industry reports commissioned by the state and/or the industry itself, all of which emphasised the importance of the music industry to Ireland in economic terms. A sample selection includes IFPI (1994); Simpson Xavier Horwath (1994); Stokes Kennedy Crowley (1994); Coopers and Lybrand (1994); Burke (1995); IBEC (1995, 1998); FORTE (1996); Clancy and Twomey (1997); Music Board of Ireland (2002, 2003). Here too, copyright and intellectual property concerns were embedded in the discourse regarding the development of the music industry in the Irish context. For example, the Simpson

Xavier Horwath (1994) report emphasised copyright as a ‘pre-requisite’ to any strategy for the development of the Irish music industry, and to this end advanced fourteen proposals on copyright reform with the aim that Ireland ‘be seen as a copyright friendly country ... as one basis on which to attract international investment in the Irish music industry’ (ibid., p. 33).

During the initial years of Ireland’s economic crisis, such studies and reports dried up. More recently, however, consultants have again been engaged by various industry representative bodies to measure the impact of the music industry in Ireland and make recommendations for its future direction. Again, narrowly conceptualised copyright rhetoric has been a central feature. For example, commissioned by the Irish Music Rights Organisation (IMRO), the Deloitte report (2015) recommends the appointment of an Irish intellectual property ‘Tsar’, linked to a music industry task force, to enhance structures that currently exist regarding copyright legislation and enforcement to combat ‘the free rider problem in music’ arising from digital file sharing (ibid., p. 26). Such a policy initiative is emphasised as crucial to solving ‘perceived market failures’ and ensuring that ‘Irish music will continue to be at the heart of national culture [and] ... act as a driver of economic growth’ (ibid., p. 28). Equally, a recent consultation paper emanating from the music sector (IRMA/PPI 2014) noted that broader copyright industries in Ireland generated a turnover of €18.65 bn in 2011, and gross value added of €4.6 bn, representing 2.93% of gross domestic product (GDP). The paper stressed that ‘this value is heavily dependent on copyright protection’ (ibid., p. 3).

While the latter reports highlight the growth of the digital music market in Ireland, and point to new opportunities arising for the industry in this context, overall the broad body of policy literature generated over the years presents the music–digital convergence in a problematic light. While ‘the Internet, digital consumption and streaming have led to an ever-increasing audience for music’, paradoxically they have influenced lower sales and a lower unit value, and driven the expectation ‘that music is free’ (Deloitte 2015, p. 46).

12.2 CRISIS AND MUSIC INDUSTRY RESTRUCTURING IN DIGITAL TIMES

In reaching for strengthened copyright/IP protections, Irish policy discourse on the music industry was distilled, not least, through the perceived threats posed by changing consumer behaviour in the context of

an evolving digital environment. While on one level the music industry has responded to the loss in recording revenues in the new millennium by pursuing the suppliers of file-sharing technologies, individual network users and ultimately Internet service providers through the courts, it has also diversified and restructured itself to cultivate new revenue streams and bolster oligopolistic power structures. Here, let us consider some of the headline-level developments in the international music industry that contextualise developments within national boundaries, before moving on to examine their relevance to and implications for the Irish context.

Considering the growth and expansion of the music industry's revenue-generating sources across recent years, a number of developments are of note. While physical sales have declined, the value of the digital market has consistently (but far from uniformly) grown. By 2013, it had risen to a global value of approximately \$6 bn (IFPI 2014). That same year, the value of the Irish digital market was €13 m, representing a 62.5% increase over the previous four-year period.

Regarding direct sales, iTunes remains the biggest actor in the digital music store market and carries a catalogue of approximately 40 million tracks. Launched in Ireland in 2005, and currently with online stores available in 119 countries, iTunes achieved 25 billion downloads internationally by 2013 (Apple 2013). In 2015, it was one of more than 20 licensed digital music services in Ireland that encompassed à la carte and/or subscription services, mobile services, streaming, social networking sites, brand partnerships and other direct-to-consumer sites. The pervasiveness of digital is illustrated through the mushrooming array of platforms across which music is now officially released. For example, Beyoncé's *I Am Sasha Fierce* album was released across no fewer than 260 different formats (IFPI 2010).

While there is little consensus among our interviewees regarding the benefits of streaming for recording artists, most point to long-term manifest benefits for big catalogue owners (primarily the three major labels and publishers) from this domain. Many interviewees see it as the dominant consumption model of the next decade and, as such, in the words of one artist manager, the 'surest and most likely form of revenue' for artists and labels in the local and international marketplace (Personal interview).

Equally, the recent evolution of the music industry is characterised as much by developments beyond the digital realm as within it. As many interviewees highlighted, there has been an accelerated drive towards synchronisation (for example, the use of songs in film, television, advertising and so on) in recent years. This is affording labels, publishers

and artists an increasingly lucrative site of both revenue generation and promotion. For the director of marketing at the Irish arm of one of the major labels, the fostering of relationships with music supervisors and advertising executives and the ‘creation of synergies with brands’ is an increasingly important aspect of ‘business development’ on both artist and label (Personal interview). Elsewhere, another interviewee notes:

You have advertisers migrating to link with bands and music brands more and more. Music revenues are more and more generated by the application of music in other things. (Personal interview)

Overall global music publishing revenues grew from \$8 bn to \$9.4 bn by 2012. However, eMarketer estimated that worldwide synchronisation licences for the sector increased from \$2.1 bn to \$2.5 bn across the same period (Grabstats.com 2012).

Such developments have been at the core of a growing music performing rights sector over the past two decades. According to CISAC (2012), global royalties collected in this domain more than doubled in value across the previous 15 years to a record high of \$7.5 bn. In the Irish context, across the same period, such royalties as collected by IMRO mushroomed from approximately €16 m to almost €40 m (various IMRO annual reports, cited in Rogers 2013, p. 101). As a current IMRO representative stated:

We now know the ultimate size of the Irish market. We now know the number of places that there are in every single category that we collect from, and it is our aim to collect from every single one of them. The law says that wherever music is performed publicly, whoever is in charge of organising that performance owes the writer and publisher a payment. And we are in the business of collecting those payments. Our distributable last year went up by 4.2% on the previous year. So, despite the economic downturn, we’ve virtually held our own. (Personal interview)

In fact, this sector has traditionally demonstrated itself to be immune to periods of economic turmoil. The more recent growth trends here are consistent with Harker’s (1998) account of how performing rights trebled in value in the UK market through the slump across the 1970s and 1980s.

Equally, the live music industry has mushroomed in the twenty-first century. While the IFPI (2012) estimated the value of the concert industry to be approximately \$21 bn worldwide in 2010, a study conducted

at the University of Liverpool by Dave Laing (2012) indicated this to be a conservative figure, advancing \$25 bn as a more accurate valuation. This has represented unwonted growth in this sector over the period of a decade to a point where the concert industry is now as valuable as the record industry.

Overall, while the twenty-first century points to considerable decline in the fortunes of the record industry in terms of the sale of physical recorded products, we can see a very different picture when revenue generation is placed in the context of the broader range of activities that constitute the music industry.

As such, these trends indicate a fundamental shortcoming in much media commentary on the music industry, which has served to confuse the recording sector with the wider music industry. Moreover, with some notable exceptions (for example, Williamson and Cloonan 2007), academic accounts have often fallen foul of the same erroneous conflation.

The reality is that over the past decade, the major labels have reconfigured themselves as 360-degree music companies, with multi-rights deals increasingly sitting at the heart of their relationships with recording artists. As such, labels can now exploit a comprehensive range of copyrights, trademarks and brands emanating from the artists on their roster across the full spectrum of industry sectors. The extent of such reorganising of label structures and practices means that the now three dominant music corporations on the world stage have experienced significant success in negating many of the threats to their economic health arising from the rapid diffusion of illicit online distribution platforms since the late 1990s. For example, across the eleven years from 2004 to 2014 (inclusive), the Universal Music Group estimates its overall revenues to have fallen slightly from \$4.8 bn in 2004 to \$4.6 bn (Business Wire 2005; Vivendi 2015). Over precisely the same period, the Warner Music Group saw its overall revenues drop from \$3.4 bn to just in excess of \$3 bn (WMG 2005, 2014), while Sony Music Entertainment saw its overall revenues dip marginally from ¥523 bn to ¥520 bn between 2009 and 2014 (Ingham 2015; Sony 2011). Such modest declines in their overall fortunes illustrate how record sales falls are largely offset against growing dividends from other activities.

Moreover, other commentators point to the broader music industry enjoying significant growth coinciding with the maturation of the digital environment. For example, Winseck (2011) lucidly illustrates how the music industry (encompassing recording, publishing, Internet/mobile and live sectors) evolved to grow combined revenues from \$51.2 bn in

1998 to \$71.4 bn by 2010. This represented an overall growth of 40% across a period when the music industry was popularly conceived as enduring radical decline at the hands of digital change, and from circa 2007 a period of profound global economic stagnation.

12.3 SO WHAT DO THESE DEVELOPMENTS MEAN FOR IRELAND?

Ireland provides a particularly interesting case study in that it is widely lauded as consistently punching above its weight as a player in the global music market. The past four decades have witnessed the emergence of a constant stream of successful Irish acts on the international stage, including such names as The Boomtown Rats, U2, Enya, The Cranberries, Westlife, Damien Rice, The Script, Imelda May, Kodaline, Hozier and a plethora of other artists who have succeeded to a greater or lesser level in the international marketplace. By the turn of the millennium, Irish artists accounted for 2.3% of the global recorded music repertoire and, in some years, combined to generate sales well in excess of 50 million units worldwide (Music Board of Ireland 2003). As such, the sound-recording output by Irish artists has on occasions been close to thirty times the worldwide average (*ibid.*). In a similar vein to how much commentary alluded to the ‘U2 effect’ in the 1980s with the intensified flurry of A&R (artists and repertoire) activity in the territory, more recent commentary (see Byrne 2015) talks of the ‘Hozier effect’.

Here, however, we are primarily concerned with the music consumer market in Ireland. Despite a relatively small population, annual IFPI reports indicate that Ireland has regularly featured in the top 20–25 recorded music markets in the world. While still less than 1% of the global market, this nevertheless compares favourably with many territories of similar or greater size. In 2012, this materialised as 3 million CD purchases, 1.1 million album downloads and 7.5 million single-track downloads (Deloitte 2015). However, this is all in the context of a continuing decline in the revenue generated from the domestic recording market, which fell from €72 m to €33 m between 2008 and 2012 (*ibid.*). Nevertheless, as the Deloitte report concludes: ‘Compared with most other countries, our [Irish] consumption is high’ (*ibid.*, p. 31).

This same recording market very much reflects Ireland’s position as one of the most globalised states in the world, with concentration of ownership remaining unusually high. While the share of the global recording

market enjoyed by the handful of major labels that dominate it (currently Universal, Warner and Sony) has fluctuated between 70% and 75% over recent decades, the same majors have consistently accounted for a much larger slice of the Irish cake. For example, in 2007, the then four major transnational labels collectively held 92% of the market in Ireland.

Such statistics are lamented by those interviewees representing indigenous independent labels. For example, one interviewee contended:

The multinationals will expatriate profits one way or another. The profits that Warner or Sony or Universal make in Ireland, these companies generally have a way of exporting them ... Even with the success of Irish artists, a significant proportion of the profits made here goes into global pockets ... and the majority of profits made on these records outside of Ireland never enters the country. (Personal interview)

Moreover, as many interviewees testify, and reflecting well-worn trends in other small states, major labels must prioritise between two headline-level tasks in local settings. On the one hand, they can devote resources to the development and promotion of domestic artists so as to increase profit in the local market and seek to have their sister offices in other territories adopt the act. On the other, they can devote resources to the sale of already internationally established artists in the local setting. The relatively tiny size of the Irish market means the latter. As one independent label owner argues:

They [major labels] are promotion and distribution points ... Some of them have a local repertoire and try and work on it. But they are all controlled from London. The amount of control and input they have into the local music business is quite small. In terms of the multinational music industry Ireland is just a province of England. (Personal interview)

A major label representative explains it like this:

It all comes down to money. It's the same with all major labels operating in Ireland. Irish offices, if they want to invest in something themselves, have to justify it by speculating that they will sell that particular artist. Given the small population of the country, it is rare that you can generate enough money in return to make it worthwhile making the investment in recording and developing in the first place. (Personal interview)

Many interviewees who operate in the independent scene detail the promotional possibilities arising from SoundCloud, YouTube and a host of online music-specific social networks. However, despite the enhanced scope for a DIY music career emanating from ever more accessible digital recording technologies and the vast potential for independent marketing, promotion and distribution presented in cyberspace, most interviewees still regard major label investment as crucial to the long-term economic survival of an artist. As one artist manager advances:

I still think you have to have that kind of weight, that kind of power to push you out there to get you to a bigger audience. I genuinely do. I don't think there is anyone else who has that expertise, knowledge and the groundswell of people outside of the record companies that can do that for you. (Personal interview)

Another manager simply puts it like this:

While there are probably more record labels now than there have ever been in history because every band can have their own record label, the artists who are making all the money are still with major record labels. (Personal interview)

Similar but less pronounced trends are reflected in the sphere of music publishing where the three major players—Sony/ATV, Warner Chappell and Universal—collectively account for 65% of the market (Music & Copyright 2015).

In terms of the sphere of performing rights, again reflecting the international trends already outlined, there has been exponential growth in the level of performing royalties collected in the Irish market over the past two decades. Since becoming an independent performing rights society in the mid-1990s, IMRO has become much more aggressive and assiduous in administering performing rights licences and pursuing related royalties. Gross collections from the gamut of outlets that fall under its remit increased from approximately €16 m in 1996 to more than €38 m by 2010 (see various IMRO Annual Financial Statements, 1997–2011).

However, a highly contentious issue has arisen from this scenario. While revenues have grown at a very significant rate, the level of this income

being retained domestically has remained low. As one independent record label owner and publisher (and a former director of IMRO) noted:

Every year it is different. It depends on who is having success. But I think as a general rule of thumb, we'd say something in the region of 15% [of IMRO royalties] comes back to Irish members ... Well it's a reflection of the use ... What it means really is that the American companies and the UK companies—the major producers of music—have much bigger usage in Ireland than the local Irish indigenous industry. (Personal interview)

Another recently departed director of IMRO offered a fractionally more favourable scenario for indigenous artists and companies, estimating that, on average, between 81% and 84% of performing royalties were expatriated annually, leaving anywhere between 16% and 19% to be distributed locally.

While developments in the digital domain have seen spaces and places for the consumption of music proliferate, radio nonetheless remains a fundamental site of music promotion and revenue generation. As such, it represents an important source of royalties for IMRO. In 2013 there were 2.7 million radio airplays generated by Irish radio stations, reaching approximately 83% of the adult Irish population, who collectively listened to more than 3 billion hours of radio (JNLR cited in Deloitte 2015). However, with the vast majority of content relating to international artists, the vast majority of revenues in this domain are extracted out of the Irish economy. One independent music publisher noted the power wielded by the most significant performing rights organisations on the international stage:

For organisations like IMRO, they don't care. They get five euro from RTE no matter what they are playing. And, because they have to represent the international repertoire, IMRO cannot be seen to be looking for more of our [Irish] music to be played, because PRS or ASCAP might withdraw their catalogue. (Personal interview)

Another interviewee, a composer and musician, identified the core problem as centring on the Anglophone nature of the international music industry, and the fact that Ireland, as an English-speaking country, saw its indigenous music products 'in immediate competition with all of that [international] product for space on the Irish airwaves, and space in the Irish punter's head' (Personal interview). Related to this, another indepen-

dent record label owner said that the current lack of scope for minimum quotas of Irish content on Irish broadcast airwaves was compounding the situation of indigenous artists and companies.

Of the performing royalties that remain within the country, traditionally this wealth has also been highly concentrated. For example, in some years 1% of IMRO members have accounted for 67% of revenues (IMRO 2005).

An underlying consensus emerged among the interviewees that, for a combination of such reasons, the economic benefits accruing from the music industry to the domestic economy are always going to be limited. While the centrality of copyright in policy discourse to the development of creative and cultural industries in Ireland is reflected in the significant strides that IMRO has made over two decades in growing revenue returns from the music sector, the ultimate benefits of this to the Irish economy per se are much less clear. Based on the accounts of our interviewees, we might crudely argue that the net contribution of IMRO's implementation of such a policy has been to extract in excess of €30 m from the Irish economy on an annual basis.

In keeping with international trends over the past decade, the live sector in Ireland has witnessed the emergence and rise of Live Nation Entertainment (LNE), which co-owns the country's largest indoor concert venue, the 3 Arena in Dublin, as well as the Bord Gais Energy Theatre. The 3 Arena was the fifth best-attended venue in the world in 2012 when its 82 box office concerts grossed an average of more than US \$1 m per show (Pollstar, cited in Deegan 2012). While the country's primary concert promoter, MCD, remains under the guardianship of Gaiety Investments, LNE partners it in festival promotion. Moreover, again reflecting international trends, LNE/Ticketmaster dominates concert ticketing in Ireland and, through its touring agency, is responsible for the never-ending influx of international touring artists.

The underlying irony of the 'digital revolution' is that at a point in time when technology makes the production of music cheaper and more accessible than ever, and cyberspace provides seemingly boundless potential for artists to distribute and promote themselves without the intervention of corporate players, traditional power structures remain intact. Concentration of ownership across recording, music publishing and the live music industry remains high, with wealth also polarised. Within this, the globalisation of the core music sectors in a country such as Ireland means that the vast majority of revenues generated by music leave the country.

12.4 CONCLUSION

Media industries, under a broader label of creative industries, and reflecting wider upheavals of capitalism associated with drifts from manufacturing to more informational or knowledge-based economies, have received increasing attention from governments around the world as potential sites of wealth and job creation. The emergence of the global economic crisis in the late 2000s has reduced such potential in many media industries (mature and new) and, alongside disruptive processes already associated with the Internet, has eroded traditional structures of production, distribution and consumption. In particular, the global economic crisis has demonstrated that the new potentialities of the Internet for media industries, both as cultural producers and wealth drivers, cannot be conceived, narrowly, as technologically driven and must be assessed within wider economic, political and cultural contexts.

This chapter has illustrated such relations in Ireland by examining some fundamental trends characterising the evolution of the music industry in the digital age. The research examined how, through close government–industry–stakeholder relations and uncontested discursive patterns, digital and networked technological innovations such as the Internet were appropriated to preserve traditional power structures and stakeholder positions in the music sector. We recognise that the major players—and their national subsidiaries—in the Irish music industry have undergone processes of reconfiguration and restructuring in ways that lessen the contribution of the music industry to the local and national economy. While such processes were advanced prior to the Irish economic calamity, they continued and even accelerated during the crisis.

As our interviewees suggested, even during the crisis the Irish music industry's overall revenues remained robust, but in forms that perhaps provided negligible wealth benefits to the local Irish economy. Here we are reminded of the words of management guru Peter Drucker who, in assessing the impact of the film industry on national economies, remarked:

The movies probably had a greater impact on the human imagination than the Internet. [When they appeared, it was] the first time in human history that you had a worldwide communication medium, and also the first time that illiterate and poor people had access to the world ... [but] ... if the movie industry disappeared today, it would be noticed economically in only two places: Hollywood and Bombay. (Schonfield 2001)

Our data set of interviews provides a valuable insight into how the Irish music sector treats revenues generated in the local economy. This is especially important in the absence of detailed and systematic data from both governmental and industry sources on the level of wealth generated either directly or indirectly by the sector. What has been apparent from our qualitative research is the success of the sector in applying copyright/IPR frameworks to preserve traditional corporate power structures and to underpin the reshaping and calibration of revenue-generating potentialities to the digital environment. It is also apparent that the sector's consensus position on copyright/IPR frameworks has been, and is being, reproduced unproblematically in governmental and regulatory discourse on creative industries in general and the digital music industry in particular.

In response to recessions in national economies and to digital developments that threatened to undermine the traditional economics of music, industry and policy discourse has been vocal on the pivotal importance of copyright/IPR in supporting the music sector's capacity to create wealth. Yet such discourse has been quiet on the scenario that emerged strongly in our research findings: the lost local economic benefits when the majority of music revenues generated through live performance and rights-based revenues are being expatriated outside of Ireland.

BIBLIOGRAPHY

- Apple. (2013). iTunes store sets new record with 25 Billion songs sold on Apple press info [online]. Retrieved August 20, 2015, from <http://www.apple.com/pr/library/2013/02/06iTunes-Store-Sets-New-Record-with-25-Billion-Songs-Sold.html>
- Burke, A. E. (1995). *Employment prospects in the Irish music sector*. Paper presented to the Statistical and Social Inquiry Society of Ireland, Dublin.
- Business Wire. (2005). Vivendi universal reports full year 2005 revenues up 9% and 7% on a comparable basis' on Business Wire [online]. Retrieved from http://www.businesswire.com/news/home/20060130005463/en/Vivendi-Universal-Reports-Full-Year-2005-Revenues#.Va5Rs_n4G5I
- Byrne, N. (2015, July 30). How music works: Why the Irish music industry is failing in *The Irish Times* [online]. Retrieved from <http://www.irishtimes.com/culture/how-music-works-why-the-irish-music-industry-is-failing-1.2302033>
- CISAC. (2012). *Authors' royalties in 2010: An unexpected rebound—Global economic survey of the royalties collected by the CISAC member authors' societies in 2010*. Paris: CISAC.

- Clancy, P., & Twomey, M. (1997). *Clusters in Ireland—The Irish popular music industry: An application of porter's cluster analysis*, Research series paper no. 2. Dublin: National Economic and Social Council.
- Coopers & Lybrand. (1994). *The employment and economic significance of the cultural industries in Ireland (a report commissioned by Temple Bar Properties)*. Dublin: Temple Bar Properties.
- Cunningham, S. (2009). Trojan horse or roschach blot? Creative industries discourse around the world. *International Journal of Cultural Policy*, 15(4), 375–386.
- Deegan, G. (2012, January 18). O2 Dublin fifth best attended venue in the world in *The Irish Independent* [online]. Retrieved from <http://www.independent.ie/entertainment/music/o2-dublin-fifth-best-attended-venue-in-world-26812330.html>
- Department of Communications, Energy and Natural Resources. (2013). *Doing more with digital: National digital strategy for Ireland: Phase 1—Digital engagement*. Dublin: DCENR. Retrieved from <http://www.dcenr.gov.ie/NR/rdonlyres/54AF1E6E-1A0D-413F-8CEB-2442C03E09BD/0/NationalDigitalStrategyforIreland.pdf>
- Department of the Taoiseach. (2008). *Building Ireland's smart economy: A framework for sustainable economic renewal*. Dublin: Department of the Taoiseach. Retrieved from http://www.taoiseach.gov.ie/BuildingIrelandsSmartEconomy_1_.pdf
- Deloitte MCS. (2015). *The socio-economic contribution of music to the Irish economy*. Dublin: Irish Music Rights Organization.
- Dublin City Council (2010). *Defining and valuing Dublin's creative industries*. Dublin: Dublin City Council. Retrieved from http://www.dublincity.ie/sites/default/files/content/Planning/EconomicDevelopment/Documents/Creative_Industries_Final_Report._05.05.10.pdf.
- EC. (2005). *Future of creative industries. Implications for research policy* (Working Document). Brussels: European Commission. Retrieved from ftp://ftp.cordis.europa.eu/pub/foresight/docs/a4_eur21471_web2_final.pdf
- FAS. (2004). *Skills requirements of the digital content industry in Ireland: Phase 1*. Dublin: Fas. Retrieved from http://www.skillsireland.ie/media/egfsn050201_digital_content.pdf
- Forbairt and IDA Ireland. (1997). *Multimedia Ireland: Realising the potential*. Dublin: Forbairt and IDA Ireland.
- Forfás. (2002). *A strategy for the digital content industry in Ireland*. Dublin: Forfás. Retrieved from http://www.skillsireland.ie/media/forfas021101c_digital_content_strategy.pdf
- Forte Task Force. (1996). *Access all areas: Irish music—An international industry, report for the minister for arts, culture and the Gaeltacht*. Dublin: Government Publications Office.

- Harker, D. (1998). It's a Jungle sometimes: The music industry, the crisis and the state [online]. Retrieved from http://www2.hu-berlin.de/fpm/textpool/texte/harker_the-music-industry-the-crisis-and-the-state.htm
- Hesmondhalgh, D. (2013). *The cultural industries* (3rd ed.). London: Sage.
- IBEC Music Industry Group. (1995). *Striking the right note—A submission to government on the development of the Irish music industry*. Dublin: IBEC.
- IBEC Music Industry Group. (1998). *Raising the volume: Policies to expand the Irish music industry—A submission to government*. Dublin: IBEC.
- IFPI. (1994). *The music and recording industry in Ireland*. Dublin: IFPI.
- IFPI. (2010). Music how, when, where you want it: Digital music report 2010 [online]. Retrieved from <http://www.ifpi.org/content/library/DMR2010.pdf>
- IFPI. (2012). *The record industry in numbers*. London: IFPI.
- IFPI. (2014). *Lighting up new markets: Digital music report 2014* [online]. Retrieved from <http://www.ifpi.org/downloads/Digital-Music-Report-2014.pdf>
- IMRO. (2005). *Irish music rights organisation submission paper to the department of finance, 30th March 2005*. Dublin: IMRO.
- Ingham, T. (2015). 'Why Sony music and Sony/ATV are on course for a big financial year' in Music Business Worldwide [online]. Retrieved from <http://www.musicbusinessworldwide.com/why-sony-music-and-sonyatv-are-on-course-for-big-financial-years/>
- Kerr, A., & Cawley, A. (2012). The spatialisation of the digital games industry: Lessons from Ireland. *International Journal of Cultural Policy*, 18(4), 398–418.
- Laing, D. (2012). What's it worth? Calculating the economic value of live music on live music exchange [online]. Retrieved from <http://livemusicexchange.org/blog/whats-it-worth-calculating-the-economic-value-of-live-music-dave-laing/>
- Lee, J. (1989). *Ireland 1912–1985: Politics and society*. Cambridge: Cambridge University Press.
- Music Board of Ireland. (2002). *Shaping the future—A strategic plan for the development of the music industry in Ireland*. Dublin: Music Board of Ireland.
- Music Board of Ireland. (2003). *The economic significance of the Irish music industry*. Dublin: Music Board of Ireland.
- Music & Copyright. (2015, April 28). Recorded music market share gains for WMG in 2014, Sony/ATV is the publishing leader in *Music & Copyright* [online]. Retrieved from <https://musicandcopyright.wordpress.com/tag/market-share/>
- O'Toole, F. (2004). *After the ball*. Dublin: New Island.
- Preston, P., Kerr, A., & Cawley, A. (2009). Innovation and knowledge in the digital media sector: An information economy approach. *Information, Communication and Society*, 12(7), 994–1014.
- Rogers, J. (2013). *The death and life of the music industry in the digital age*. New York: Bloomsbury Academic.

- Schonfield, E. (2001). Peter Drucker Interview in *Business 2.0*, October [online]. Retrieved from <http://www.business2.com/articles/web/0,1653,17104,00.html>
- Simpson Xavier Horwath Consulting. (1994). *A strategic vision for the Irish music industry—A submission to government*. Dublin: Simpson Xavier Horwath.
- Sony. (2011). Annual report 2011 [online]. Retrieved from <http://www.sony.net/SonyInfo/IR/financial/ar/report2011/SonyAR11-E.pdf>
- Stokes, Kennedy Crowley. (1994). *A report on the Irish popular music industry*. Dublin: Stokes, Kennedy, Crowley.
- Vivendi. (2015, February 27). 2014 Vivendi Earnings Press Release—[online]. Retrieved from http://www.vivendi.com/wp-content/uploads/2015/02/20150227_VIV_CP_Annual_Results.pdf
- Warner Music Group. (2005, December 1). Investor Relations press release [online]. Retrieved from <http://investors.wmg.com/phoenix.zhtml?c=182480&p=irol-newsArticle&ID=791605>
- Warner Music Group. (2014). Warner music group corp. Reports Results for Fiscal Fourth Quarter and Full Year Ended September 30, 2014 [online]. Retrieved from <http://www.wmg.com/news/warner-music-group-corp-reports-results-fiscal-fourth-quarter-and-full-year-ended-september-3-1>
- Williamson, J., & Cloonan, M. (2007). Re-thinking the music industry. *Popular Music*, 26(2), 305–322.
- Winseck, D. R. (2011). Political economies of the media and the transformation of the global media industries: An introductory essay. In D. R. Winseck & D. Y. Jin (Eds.), *The political economies of media: The transformation of the global media industries* (pp. 3–48). London: Bloomsbury.

Pachelbel This Ain't: Mashups and Canon (De)formation

Anthony Cushing

As I write this, we are nearly 12 years past the release of DJ Danger Mouse's *Grey Album*. The album, a synchronic integration of a capellas from Jay-Z's *Black Album* and the Beatles' *White Album*, introduced the music mashup to a relatively mainstream audience. The Evolution Control Committee's (ECC) 1996 *Whipped Cream Mixes* was, perhaps, the first proof of concept for what is now the standard mashup, and subsequent artists produced and refined the mashup through increasingly sophisticated digital machinations. What was notable about the *Grey Album*, apart from the clever use of samples and studio-grade polish, was its release at the right time and the right place. By 2004, peer-to-peer (p2p) file sharing was a mature and widespread means of distributing massive volumes of music and video data online. Furthermore, the release also coincided with the introduction of online video sites and wider use of broadband Internet connections. YouTube came online almost a complete year after Danger Mouse's opus, though it influenced the eventual growth of the mashup. Not surprisingly, it was the threat of litigation, popular backlash and subsequent p2p distribution that secured a special place for the *Grey Album*. It was clear that the mashup was a unique musical phenomenon, without a parallel point of reference in the contemporary pop and rock repertoire.

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Irrespective of past production practice, Danger Mouse's creation alerted the mainstream to the new popular music trend. However, to those 'in the know', the mashup was another contribution to the centuries-old compositional practice of musical borrowing in the realm of art music.

Medieval and Renaissance composers integrated secular songs into sacred, liturgical music; the *quodlibet*, a popular, novelty musical form in the Baroque period, comprised two or more pre-existing songs layered atop each other (Maniates 1966). The aim was not to create entirely new work, but rather humour or commentary; more recently, French composers Pierre Schaeffer and Pierre Henry's *musique concrète* made use of recorded sounds but painstakingly manipulated them until unrecognisable. John Oswald's *Plunderphonics* did just the opposite. While Oswald made use of pre-existing recordings—always popular music—he manipulated them for the purpose of satire and commentary. Even more recently, digital sampling in hip-hop is common practice to construct the basis for a new track in the form of loops, to comment on another artist, issue or situation, or to pay homage to previous artists. The topic of sampling in hip-hop is substantial and best left for the many volumes already in print; I introduce it here only for the purpose of historical contextualisation.

The joy derived from the mashup comes primarily as a result of the 'A versus B' format in which one song's instrumentals—albeit heavily manipulated—form the mashup's musical underpinning while another song's vocals, similarly manipulated, form the new vocal track. A successful mashup pairs the two or more parent songs with a metric and harmonic congruity. As is the case for some mashups, the producer's ability to wring comedic impact from musical juxtapositions is one hallmark of a good work (Brøvig and Harkins 2012). The humour arises from the visceral reaction to the genre clash or surprisingly complementary relationship of two unlike songs or artists brought together. The never-was collaboration of Justin Bieber and Slipknot in 'Psychosocial Baby' may draw from the listener a hearty 'guffaw', or slack-jawed wonderment as to how and why a producer paired those artists.

With time and established production practice comes stability. The ECC released their two-song mix album nineteen years ago and, in the interim, the mashup matured into its own form. Mashups are now accepted as commonplace in practice, if not in familiar commercial products such as one might find in the iTunes store or a bricks-and-mortar retail outlet. Current and past US copyright legislation prevents the 'unlawful' use and distribution of unlicensed recorded materials. That said, locating and

acquiring these works are significantly less cumbersome than during the form's formative years in the shadow of imminent litigation. Early distribution was limited to select, discrete channels. Producers and listeners participated in covert operations as if inhabiting the dark web, a not-so-secret society of ersatz digital music scofflaws. Community participants collaborated and communicated in password-protected, pseudonymous user forums, trading their wares freely. Likewise, p2p channels offered an additional layer of anonymity and a broader reach.

The *Grey Album* changed the direction of mashup distribution to a significant extent. Immediately after the album's release, EMI, the record label that owns the Beatles' recordings, issued Danger Mouse a cease-and-desist order for his use of unlicensed, copyrighted material. The ensuing debate over copyright threatened to overshadow the musical milestone, though it acted as the catalyst for a renewed debate about the legalities of intellectual property law. Copyright activist Kembrew McLeod was one of the first academics to comment. The mashup's appeal, he argued, was its democratising force in the music industry (McLeod 2005, p. 80). In response to EMI's threat, a cadre of copyright activists staged an act of mass civil disobedience called 'Grey Tuesday' in support of Danger Mouse. On that day, downloaders acquired over one million copies of the album from websites, blogs and p2p networks. Sam Howard-Spink in his article on the mashup and Grey Tuesday laments the mashup's existence in a commercial netherworld where the music is effectively contraband and is only permitted to exist to the extent that it remains below the commercial radar (Howard-Spink 2004, par. 8).

EMI later retracted its cease-and-desist order and, in doing so, established a legal precedent for mashup producers. The music industry turned a blind eye to mashup distribution with the tacit understanding that producers operate under the veil of commercial disinterest. It paved the way for DJ Girl Talk, who released his mashup album *Feed the Animals* in 2008. Online file sharing constituted only a minor distribution channel for Girl Talk; he set up a pay-what-you-want download site on a dedicated domain, which, presumably, constituted 'commercial disinterest'. Journalists and copyright activists alike waited for music industry legal action, but it did not materialise. This and other milestones in the mashup's lineage only served to cement a spot for the milestone *Grey Album* in an as yet undefined canon.

Therein lies a problem: the mashup canon did not and does not exist. Where, then, does the *Grey Album* belong? It is an orphaned entity in

search of a niche among peers. In the commercial canon of popular music there are no *Grey Album* equivalents, only comparisons to hip-hop albums that rely heavily on digital samples. It seems, at first, a fair likening, if only because Jay-Z's vocals are just lightly manipulated. The comparison is disingenuous, though, because most hip-hop artists create *original* musical material to accompany their vocals and use samples only to *augment* their work. Mashups use *only* pre-existing material. Even in the few years following the *Grey Album*'s release the mashup was still relatively marginalised, with little productive, polished output and only a short time to accumulate a representative body of work. The intervening twelve years between then and now have given mashup producers ample time to hone their craft and release quality work.

No matter the progress, it begs one to address the notion of a mashup canon and, subsequently, whether such a canon is necessary or possible. How might the community of producers and listeners determine the criteria for canonisation? How might they ensure that due consideration is given to any and all mashups? Furthermore, what might it contribute to the form, if anything at all? Walter Mignolo in his work on canon formation in non-Western cultures proposes a functional purpose:

[O]ne of the main functions of canon formation ... is to insure the stability and adaptability of a given community of believers. Thus, the community places itself in relation to a tradition, adapts itself to the present, and projects its own future. (Mignolo 1991, p. 1)

Mignolo sets up a chicken-and-egg quandary: does a canon ensure stability or must a community of believers be sufficiently stable to establish a canon of representative works? This prompts the question as to who constitutes the community apart from self-identified producers. Perhaps a more pressing question is how to establish a new canon, distinct from other distantly related canons; how does the community enumerate and evaluate a list of 'classics', unique works notable for their contribution to the art and production technique, without resorting to comparison to unlike works?

'The' canon has its historical roots in the bible, specifically groups of biblical texts taken to be true. It also takes the form of ecclesiastical rules approved by the governing body of the Catholic Church, the Pope. The term in musical discourse developed parallel to the discursive tradition in literature. The notion of an organised musical canon took root in the

nineteenth century along with the discipline of musicology. Practitioners of this discipline, musicologists, celebrated current and not so distantly departed composers and their work as exemplars of universal beauty and sophistication. In effect, the musicologists sought to historicise the repertoire and practice while still fresh. The phrase 'history in the making' resonates loudly in this discussion.

Canonicity and the tendency to group the best works and artists spread beyond the art music realm and into jazz, folk and popular music, among others. Critics and listeners formed their own canons of representative performances and recordings. But a canon is not just an official collection. Komara, in his argument for music librarians as arbiters of canonicity, suggests a tenfold taxonomy of canons, four of which are applicable to the discussion at hand:

- Official:* Standard, institutionalised lists. The 'official' designation indicates the type of work referred to when using the term 'canon'.
- Personal:* The individual 'best of' lists, quick picks and recommendations.
- Critical:* Works referred to often in critical or scholarly publications.
- Nonce:* Works or artists *du jour*. It is only the passage of time and fleeting trends that determine who ascends the hierarchy into the pantheon. (Komara 2007, pp. 236–237)

The 'official' mashup canon is, as yet, at a loss for a standardised list, though there is a movement towards institutionalisation that I discuss later in terms of scholarly mashup discourse. Personal canons, at least in terms of the mashup, usually emerge informally in one-on-one or group discussions in the form of 'have you heard the mashup with "Artist X" and "Artist Z"?' resulting often in a swift Internet search. Since the mashup is denied entrance to the commercial realm, the 'quick picks' qualifier does not apply here as it might, say, on Amazon or the iTunes store. Alternatively, we may consider substituting 'mainstream' for 'personal', as it appears to operate outside the realm of the critical or official canons. In this respect, though, the mainstream is deceptively democratic and is 'inextricably tied to institutionalized practices of critique and education' (Kärjä 2006, p. 16). New things are evaluated relative to what came before them. This continues until another set of criteria develops to address the new things in their own terms.

A critical canon is developing and in a fledgling state as academics turn their critical inquiry towards the form and the community. This qualifier falls squarely into the realm of ‘institutionalised’ canon formation to which Kärjä (2006) refers. Finally, the ‘nonce’ qualifier, as in legally sanctioned commerce, is ongoing; however, even the passage of time has not necessarily cemented a collection of representative works. Apart from a few notable examples that receive attention in the popular online press, most go unnoticed, no matter their imaginative amalgams and production polish. ‘Nonce’ may not be the most effective qualifier of canonicity as regards the mashup. This only serves to illustrate the tenuousness of the situation.

To revisit Mignolo’s suggested function of a canon, his optimistic mention of a ‘community of believers’ conjures an image of the underdog who, on faith, codifies a pantheon as a point of reference for the community. Geoffrey Green’s scathing criticism of canonicity runs counter to Mignolo:

The canon is the collective fiction that there is a standard body of great masterpieces that have existed through the ages, transcending the test of time ... The idea of the canon is that the so-called truth of great masterpieces may be communicated unceasingly and without change, from generation to generation, in perpetuity. (Green 1997, p. 132)

Green’s invective is not without some validity. While Mignolo argues for the idea of a communal reference point, Green points to a community that elevates and maintains, uncritically, works that reflect the values of a dominant group of tastemakers. This group may promote a canon for political ends, to validate the cultural production of a particular nation, race, creed, socio-economic status or other. Conversely, the group may use its influence to exclude other works or artists whose values do not reflect its own. It may also defend its respective canons vociferously when confronted with viable entries. How might baby boomers react when told that Bob Dylan’s lyrics are not necessarily universally communicated poetry? Similarly, what if Glenn Gould fans lash out when told that a current pianist has cornered the Bach market? Green follows up his critique with a similar critique of those who seek to supplant the dominant group: ‘The irony in our current situation is that those who would reform the canon are themselves believers in canonicity’ (Green 1997, p. 134). The underlying flaw with canon reformers is the axiom that consciously avoiding or countering an ideology is itself an ideology. Thus far the mashup benefits from the advocacy

of a small group of influential tastemakers, though not necessarily for the sake of canonisation.

It may be that the form must have a more firm foundation before proceeding. Rakefet Sela-Sheffy revisits the mechanics of canon formation. In retracing the steps en route to a canon, he suggests that '[t]he work of canonization includes the construction of a particular *theory* and a *history* of the field' (Sela-Sheffy 2002, p. 153, original emphasis). While the community considers the possibilities, it faces simultaneously a number of other concerns. For the remainder of this chapter I turn my attention to practical barriers for the mashup community as it relates to canonicity and canon formation.

Those who advocate for the mashup's legitimacy and pantheonic preservation do so in the shadow of several problematic considerations: the legality of production is questionable; there are few, if any, organised and regulated distribution channels; distribution issues also affect the matter of gathering metrics; and, finally, identifying the gatekeepers, the tastemakers who wield influence in the community, is difficult. There are several minor factors that also contribute here, including the ephemerality of the form, the insatiable search for the 'new thing' and the low signal-to-noise ratio in terms of good-quality mashups versus poor-quality mashups.

Legality, above all, is the most problematic of the barriers to canon formation. The mashup occupies a legal hinterland insofar as the form is accepted in the mainstream, although it remains commercially unsanctioned. Producers rarely, if ever, acquire a licence to use their samples, because it is prohibitively expensive. In this respect, mashup production transpires outside the music industry's reach, but well within their legal purview. To an extent, this issue is rendered moot as long as producers maintain commercial disinterest in their mashup work. Danger Mouse, to his credit, did not profit directly from the *Grey Album*, though he certainly gained a significant measure of cultural capital from the project and later co-opted his fame to taking up lucrative commercial projects—Gnarls Barkley and Broken Bells—under the legal auspices of the music industry. Copyright and intellectual property law undoubtedly protects the interests of artists who operate under the guise of originality even while displaying clear influence from another artist, or by appropriating—with permission—digital samples from other artists. Copyright protects canonical works not yet in the public domain, and rejects works that do not abide by the commonly accepted, established regulations. Industry intervention in what would otherwise be a free market of cultural production erects bar-

riers to legal circulation but not actual circulation and distribution. Denial of circulation is by threat of litigation rather than technical roadblocks. However, no matter the number of technology-enabled distribution channels, they too have structural deficits that hinder this exercise of canon formation.

P2p networks were the primary means of early mashup distribution, as they did not require anything of the user apart from a select number of search terms. The mashup's novelty and the perceived user privacy and security seemed an ideal match—both operated under the commercial radar for a short measure of time. The Recording Industry Association of America (RIAA) lawsuits, in which the labels sued individual file downloaders, had a deleterious impact on applications like Limewire and its ilk, at least for music content. The bit-torrent protocol offered a much greater element of privacy and security, as it shares files between users without first being routed through a central server. The 'underground' mode of file distribution continued for a short while. Music industry inaction following *Feed the Animals* emboldened more public mashup distribution on blogs and open user forums. The most prominent blog (Bootie Mashup) and user forum (GYOB) make their top picks available for download on a weekly or daily basis and frequently promote particular producers for consistently polished work. Additionally, while most producers include the relevant metadata with their work—producer, source works and production date—these sites ensure the veracity of the data.

Quality control is not consistent between all sources because they are not all curated or centralised. Some sources may offer files with either incomplete or missing metadata. In 2008, while in the early stages of my research, I found a torrent file that indexed five 'volumes' of mashups with approximately fifty tracks in each. None of the tracks included producer information in the metadata or, in many cases, the production date; some of the file names included only a truncated version of the original title, though most titles identified the 'mashed up' artists, for example 'Justify My Badness—Madonna vs. Michael Jackson'. It is likely that a mashup collector simply collated their collection and made it available, since there was no indication that the originating user tried to claim producer credit. This is an issue of attribution; how might a producer build a reputation and, possibly, secure for themselves a spot in the pantheon? It took several months of creatively searching user forums and search engines to find the correct metadata for the files, though several of the mashups from that collection remain 'orphans' with no identifying information. Google's

reach is unfathomably broad, but it is not infallible if given incorrect or insufficient search terms.

Online file sharing was a key element in establishing the mashup as a widespread music phenomenon in the wake of the *Grey Album*. However, what once helped producers distribute their work to a wide community of enthusiasts now has the effect of working against the mashup, as it dilutes the art's potency and permanence. Surely, members of the mashup community would not object to mass interest in the form. Availability of content is not the pressing issue in this discussion. With some notable exceptions, the channels through which the content is made available lack a mechanism for compiling and analysing distribution metrics.

Canon formation relies on a number of factors, some already laid out. However, newer canons also rely to an extent on a system of metrics to determine 'favourites' and 'treasured classics', as evinced in the past by Time-Life album compilations and drug store point-of-sales 'Best of [Year]' mix CDs. Mashup producers do not benefit from the system of metrics afforded to commercially sanctioned music. Nielsen's SoundScan service, established in 1991, gathers music sales data from thousands of retail outlets. The service collects information by UPC (universal product code) label on a weekly basis and distributes it to service subscribers: record labels, concert venue owners, booking agents and online music stores, among others. However, for a retailer to participate in Nielsen's service they must operate a specific set of required hardware and software tools. Independent, bricks-and-mortar music retailers who cannot or do not use the service may employ their own system for tracking sales data to create in-house promotions. Online music retailers like Apple's iTunes store contribute data to the SoundScan service, though iTunes, like other online retailers, has at its disposal mechanisms to extract more comprehensive metadata than SoundScan, not only about the music but about the *buyers*. Music streaming services, too, have the capability to gather a great deal of information about their subscribers. Demographics run more specific than gender and can also include age, income level, means of access (desktop computer, mobile device, OS platform, web browser or app) and IP-based location. Though these companies may not actually collect or use this metadata, it at least makes available the possibility to reach a narrow demographic. Perhaps One Direction is especially popular with females, aged 18–21, at Columbia University in New York City, using a streaming service on their tablet. This is potent information not just for marketing initiatives but also for quantifying a work's impact,

whether fleeting or enduring. The music industry has a highly organised mechanism for collating, analysing and mobilising metrics. The problem, as it relates to the discussion at hand, emerges loudly.

Some individual mashup producers maintain their own web domains and post their newest work for download or via embedded links from any of the popular video-sharing sites. Similarly, third-party blogs dedicated to mashups are carefully curated, with new content posted on a semi-regular basis. Forums like GYOB are moderated though not curated, but host a greater quantity of mashups whose quality varies significantly along the quality assurance spectrum. The common denominator for these channels is their medium: they are all web based. While this medium allows for the widest possible distribution channel, available to the widest possible international audience, it also hinders the gathering of reliable download metrics.

Most popular content management systems (CMS) feature plug-ins that allow the owner to track file downloads and metadata similar to the larger systems that retailers use. There are several caveats and limitations to these systems. The systems can generate reliable data only *if* users download the files using a prescribed method—directly clicking on a link. The download may not register if the file is accessed via an external link on another website, or if the user saves the file directly rather than clicking on the file to download it. These freely available CMS can be difficult to set up on a user's own web server. At some point every content creator must consider whether managing a CMS would provide a favourable return on investment for their time and labour. However, for reliable data gathering across the community, all stakeholders (producers, blog owners, forum moderators) would have to agree on a standard, pool their data, analyse it and store it somewhere for open access. Clearly, this situation is not encouraging.

Currently, content creators have at their disposal video and music sharing sites like YouTube, Vimeo and SoundCloud. To some extent, this alleviates the need to post files on blogs directly and instead creators embed links to their mashups hosted on any of the content hosting sites. The services offer some rudimentary data gathering based on the number of views and listens, a clear advantage over individual websites that do not offer the same mechanisms out of the box. Download numbers are irrelevant on video/audio streaming services; it is the view and play counts that matters. Again, these metrics come with caveats. The sites register only the number of views, not the number of unique viewers/listeners.

It does not follow that, say, one million people listened to a mashup only once. Rather, perhaps 800,000 people listened to the mashup and some people more than once.

YouTube and Vimeo are fastidious with their viewing metrics, though their system is not bulletproof. Users and listeners, ultimately the ones who vote for canonisation with their ears and mouse clicks, sometimes unwittingly work against the mashup community and canon formation efforts. In some notable instances, after a producer posts a mashup with accompanying video on, say, YouTube, some listeners will repost an edited version of the video through their own account, or create a new video to accompany the mashup. A YouTube search for DJ Earworm's 'United States of Pop 2014' video yielded no fewer than 32 results, excluding Earworm's official video. Among the list were fan videos (new, original visuals set to the music), 'lyrics' videos that are reposts of the original file but with the song lyrics embedded like subtitles, 'one-hour loop' versions in which the song repeats for a full hour, and other users who try to recreate Earworm's own mix and add their own visuals. While admirable, the listener's enthusiasm for proselytising for the mashup makes data collection that much more difficult. Should the producer count only the views for their own video or include the edited versions of the official video? What of the fan videos that attempt to recreate the original mix?

In the commercial market, measurements and data gathering feed into other elements that drive canon formation. Billboard ratings are determined by SoundScan data, and MTV in the USA and MuchMusic in Canada base their video ratings on a combination of Billboard ratings and viewer voting. Radio airplay works similarly. In this instance, the Billboard ratings drive airplay, which can subsequently drive future sales. Awards ceremonies, too, are not just a reflection of prevailing (commercial) musical trends; they are arbiters of artistic value. Awards ultimately feed into Komara's 'nonce' canon category to determine, in part, what of today's cultural production might remain in the pop culture consciousness. Mashups do not benefit from the variety of metrics afforded to commercial music, nor do the 'best of' mashups receive awards for outstanding contributions to the art or for sales. Without operating on the 'right side' of intellectual property law, without solid, centralised distribution networks to collect and analyse download metrics, the community might be at a loss even to begin the process of forming a mashup canon. Yet every community has a hierarchy of tastemakers and gatekeepers, official or unofficial.

Mashups and the community from which they emerge survive and propagate even in the absence of legal sanctions, centralised distribution and reliable metrics. Every community relies on influential figures and tastemakers to establish trends and decide what is ‘good’ and ‘bad’. Alternatively, from a pessimist’s perspective, these influencers perform the role of gatekeepers, the arbiters of good taste and upholders of aesthetic piety. Truly this is the most pressing issue in the question of mashups and their own canon. Specifically, who are the gatekeepers authorised to subjectively historicise and canonise individual works and the producers who create them? I focus my examination on four parties: producers, blog owners, journalists and academics. All parties come to the community with varying depths of involvement and with distinct perspectives on the form and its place in the music community at large.

Prominent mashup producers like DJ Earworm (Jordan Roseman), Clive\$ter and PartyBen have a voice in the community, if only because their work exhibits a commercial-grade polish and they maintain their productivity despite little to no monetary compensation. They are also outspoken advocates for the mashup in interviews with trade journalists, who occasionally write artist profiles or genre spotlights. Earworm went so far as to publish a ‘how to’ text. *The Audio Mashup Construction Kit* (Roseman 2007) was a significant milestone in the form’s development. His text, and the high-level work from other producers, established among the broader community of producers and listeners an expectation for quality output. However, less prolific producers who do not share the spotlight with the star producers perhaps work in a vacuum, with only a few notable works for points of reference. To get a greater perspective on prevailing trends in mashup production, the minor producers can search and look to the work of several major producers individually. This is a cumbersome task. In this respect, the producer-as-gatekeeper role represents a one-to-many model of community influence. Strictly speaking, this is a valid gatekeeper role, though not particularly democratic. Some producers favour a different model.

Producers Adrian and Mysterious D, known jointly as A+D, host a monthly club night in San Francisco called Bootie USA. The event has travelled across the country in Boston and New York, and internationally with stops in cities like Hong Kong, Beijing, Paris, Berlin and Helsinki, among many others. A+D also own and maintain the popular blog bootiemashup.com. There they publish a monthly ‘top 10’ list of the newest mashups and previously overlooked works. Several times a year they also

release special collections for holidays like Christmas and Halloween. In an interview about their blog, A+D explained that they receive several mashup submissions for inclusion on the blog, but accept only one in every twenty-five mashups (Jam 2009, par. 3–4). Though they are producers, by maintaining this blog they also act in the role of prominent community gatekeepers and tastemakers. In a many-to-many model of distribution, they apply their own aesthetic criteria and bring the work of many producers—some producer names appear more prominently than others—to an unknown, though likely significant, number of less productive producers and listeners. Community participants (producers, blog owners, forum members, informed listeners) keep the community somewhat contained. What of participants who straddle the community and the outside, the mainstream?

Journalists contributed greatly to early knowledge of the mashup and helped establish the mashup as a legitimate cultural artefact. Writers at publications like the *Boston Globe* and *New Yorker* turned their attention to the mashup and exposed the form to a mainstream audience before the formation of a dedicated community of believers (Frere-Jones 2005; Graham 2004). However, as the form evolved and progressed, journalists lost interest in writing about mashups. When there was no legal backlash after *Feed the Animals* in 2008, stories about mashups decreased to near zero. The form was not the disruptive force it had been only three years previously and there is no news where there is no ‘edge’. No matter the journalistic disinterest, in a short three years writers at mainstream publications unwittingly set about creating a history and mythology—the formative stages of canon formation. They committed names and works to the permanence of print, even if only in short form. Another demographic overlaps their work with journalistic interests, if from a more critical lens.

Academics, perhaps unsurprisingly, turned their focus to the mashup shortly after the *Grey Album*’s release. Initial interest, like journalistic treatments, was short-lived and concentrated in the areas of copyright scholarship and aesthetics. Some voices were swift to champion the mashup for its audacious flirtation with the law (Gunderson 2004; Howard-Spink 2004; McLeod 2005), though others were not as optimistic. One academic argued that the mashup is ‘surprisingly rapid ... and bricolage for its own sake’ (Serazio 2008, p. 91). Another lambasted the form:

[T]he mash-up is definitely puerile and patently criminal. It consists of an illegal appropriation and illegitimate fusion of plundered materials that

violates both copyright law and existing industry standards and practices. (Gunkel 2008, p. 501)

Gunkle and Serazio do not mince words in their high versus low cultural arguments. Even their invective commits an early reception history to print. Conspicuously absent from the early scholarly discourse were musicologists and music theorists. It was only later that music academics turned their critical eye to the mashup. Currently, music is the primary focus of mashup research.

Robert Fink, a musicologist, writes about popular music and canonicity. He describes the onset of popular music studies in the music academy and, particularly, the rise of the ‘amphibious musicologist’ who, driven by a fear of running out of material in their primary research field, practises a form of canonisation by annexation (Fink 1988, p. 150). As an art that, essentially, cannibalises older art, this ‘annexation’ might seem a likely progression. Thus far it has not been subsumed similarly but championed by relatively young academics in the field of musicology, music theory and ethnomusicology. Apart from the early work in aesthetics, the current field of mashup scholarship includes work in ethnography (McGranahan 2010), organization analysis and taxonomy (Boone 2011), music analysis (Cushing 2013) and music and semiotics (Johnson 2013). What is most notable about mashup scholarship is that it adopts germinal ideas from early journalistic writing, explores them and then expounds on them. Certainly, academics are afforded more leeway in word count than their contemporaries in the mainstream press. Subsequently, they may also indulge in the development of a history and ‘folklore’, a necessary component of canon formation.

This is not to say that the subsumption of the mashup into the music academy is not without its perils. Like jazz and popular music studies, even ‘mashademics’ use institutionalised criteria to first validate the mashup as a ‘legitimate’ phenomenon worthy of study and scant research resources.

It is argued that while all cultural practices have ‘canonical rules’ (in the sense of accepted standards), not all have canons in the full sense of a tangible pantheon. The making of such a pantheon depends on the existence of an autonomous field with authorized consecrating agencies. Therefore, in cases of canon formation in (as yet) ‘canonless’ fields, the canonisers need to be able to act as compatible agents in other, highly canonized fields, so as to borrow models from these fields, in order to confer canonicity on the cultural production in their own fields. (Sela-Sheffy 2002, pp. 141–142)

Sela-Sheffy raises a critical point. The implication here is that the mashup may not necessarily be able to stand on its own musical virtue without reference to, say, a rock and pop canon. It is worth noting here that one of the most prolific and celebrated mashup producers, DJ Earworm, literally wrote the book on mashup production. His formal educational background in computer science and music gave him the tools necessary to communicate both a technical and accessible instructional guide to mashup creation. As a community insider he imposes the institutionalised criteria from within, independent of the music academy. Et tu, Brute?

Community stakeholders notwithstanding, mashup canon formation is not without other practical considerations. The form is ephemeral inasmuch as the trends pass quickly from one to the next depending on particular events like a celebrity death. In the wake of Amy Winehouse's death, A+D posted several mashup tributes to the late artist. They did so similarly after Michael Jackson's passing. Further to that, listeners' demand for the 'next new thing' prioritises the new at the expense of historicising past works. In doing so, older mashups are relegated to long-term storage in a forgotten folder on a hard drive, like an old toy relegated to the shelf on Christmas morning. Returning to an earlier point, sorting through mashups and the problem of low signal-to-noise ratio, the 'good' versus 'bad' mashups, makes the issue of canonicity that much more difficult.

I posit this chapter and the arguments herein under the assumption that, of course, every musical phenomenon *will* eventually garner a pantheon of its own. The discussion is largely absent thus far in the academy and the mashup community at large. Now, I pose the question for future authors: *What will be the mashup canon's raison d'être?* This chapter's purpose is not to arrive at a definitive answer, but only to present the evidence and argument.

[T]he canon, rather like a standard dialect, is an instrument of social control used by the ruling class to promote its own values and to exclude the values and interests of minorities from the cultural scene. (Anderson and Zanetti 2000, p. 344)

Anderson and Zanetti seem to argue against canon formation, or at least reveal a critical flaw with the process. Their pessimistic pronouncement of exclusivity seems anathema to the mashup community. In fact, the community appears to be inclusive of all interested in participating in production and consumption.

If one emphasises the most productive elements of a canon—creating a history and ‘curriculum’—the community will have a record of origin and progress with accompanying explanation. It may function as a learned body to promote learning, but with the understanding that it is not a fixed record and not an exclusion mechanism. Whatever form a mashup canon takes must reflect the open, democratic and self-perpetuating process of sampling, production, distribution and reception.

BIBLIOGRAPHY

- Anderson, E., & Zanetti, G. (2000). Comparative semantic approaches to the idea of a literary canon. *The Journal of Aesthetics and Art Criticism*, 58(4), 341–360.
- Antti-Ville, K. (2006). A prescribed alternative mainstream: Popular music and canon formation. *Popular Music*, 25(1), 3–19.
- Boone, C. E. (2011). *Mashups: History, legality, and aesthetics*. Ph.D. dissertation, University of Texas at Austin.
- Brøvig-Hanssen, R., & Harkins, P. (2012). Contextual incongruity and musical congruity: The aesthetics and humour of mash-ups. *Popular Music*, 31(1), 87–104.
- Cushing, A. B. (2013). *Three solitudes and a DJ: A mashed-up study of counterpoint in a digital realm*. Ph.D. dissertation, University of Western Ontario.
- Fink, R. (1988). Elvis everywhere: Musicology and popular music studies at the twilight of the canon. *American Music*, 16(2), 135–179.
- Frere-Jones, S. (2005). 1+1+1=1: The new math of mashups. *The New Yorker*. Retrieved October 10, 2007, from <http://www.newyorker.com/magazine/2005/01/10/1-1-1-1>
- Graham, R. (2004). Jay-Z, the Beatles meet in ‘grey’ area. *The Boston Globe*. Retrieved November 12, 2007, from http://www.boston.com/ae/music/articles/2004/02/10/jay_z_the_beatles_meet_in_grey_area/
- Green, G. (1997). Canons to the left of us, canons to the right of us! *Pacific Coast Philology*, 32(2, Conventional Program Issue), 132–135.
- Gunderson, P. A. (2004). Danger Mouse’s Grey Album, mash-ups, and the age of composition. *Postmodern Culture*, 15(1). Retrieved October 10, 2007, from http://muse.jhu.edu/journals/postmodern_culture
- Gunkel, D. J. (2008). Rethinking the digital remix: Mash-ups and the metaphysics of sound recording. *Popular Music and Society*, 31(4), 489–510.
- Howard-Spink, S. (2004). Grey Tuesday: Online cultural activism and the mash-up of music and politics. *First Monday*, 9(10). Retrieved November 12, 2007, from <http://firstmonday.org/article/view/1180/1100>

- Jam, B. (2009). Music for generation ADD. *New York Press*. Retrieved November 12, 2007, from <http://www.nypress.com/print-article-16365-print.html>
- Johnson, T. (2013). *Kreuzspiel, Louange à l'Éternité de Jésus, and Mashups: Three Analytical Essays on Music from the Twentieth and Twenty-First Centuries*. Master thesis, University of Washington.
- Komara, E. (2007). Culture wars, canonicity, and a basic music library. *Notes*, 64(2), 232–247.
- Maniates, M. (1966). Quodlibet revisum. *Acta Musicologica*, 38(2), 169–178.
- McGranahan, L. (2010). *Mashmography: Creativity, consumption, and copyright in the mashup community*. Ph.D. dissertation, Brown University.
- McLeod, K. (2005). Confessions of an intellectual (property): Danger Mouse, Mickey Mouse, Sonny Bono, and my long and winding path as a copyright activist-academic. *Popular Music and Society*, 28(1), 79–93.
- Mignolo, W. (1991). Canons A(nd) cross-cultural boundaries (or, whose canon are we talking about?). *Poetics Today*, 12(1), 1–28.
- Roseman, J. (2007). *Audio mash-up construction kit*. Indianapolis: Wiley Publishing.
- Sela-Sheffy, R. (2002). Canon formation revisited: Canon and cultural production. *Neohelicon*, XXIX(2), 141–159.
- Serazio, M. (2008). The apolitical irony of generation mash-up: A cultural case study in popular music. *Popular Music and Society*, 31(1), 79–94.

Music Streaming the Everyday Life

Anja Nylund Hagen

Among contemporary music audiences, the use of music streaming services has become an increasingly popular everyday activity.¹ In Norway, where this study was conducted, seven out of ten people access one of the two major services, Spotify and WiMP Music/Tidal (TNS Gallup 2015).² Revenues from various music streaming services counted for as much as 81% of total music sales in Norway in the first half of 2015 (IFPI Norge 2015).

Music streaming hence provides a good starting point for studying individual music experiences and how listening achieves meaning in the digital realm of networked music cultures. Nevertheless, we know little about how everyday streaming unfolds and how music is listened to on these services. In this chapter I therefore discuss how music streaming takes place in the everyday life of individual listeners. By exploring dedicated streaming users' practices and experiences with music streaming services, characteristic user–technology involvements will be revealed in the light of what this listening format invites in diverse contexts. Furthermore, I go on to discuss how the uses of music streaming services influence listeners' relationships with music.

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The study connects with previous research on individual music listening, conducted with an emphasis on how people handle and experience their listening technologies (for example, Bull 2000; Williams 2007) and how music in everyday life conveys meaning according to the listening context (DeNora 2000; Hennion 2012). It also follows up the identification of a missing link between music experiences and material studies in analyses of everyday music reception (Nowak 2014). The study specifically provides an empirical understanding of music experiences derived from an *online technology*, applied on personal media devices. The chapter offers concrete examples of how online media technologies in general, and music streaming services in particular, take part in shaping our individual experiences and acquire meaning through their embedding in everyday life.

This perspective is inspired by sociological phenomenology, starting with an action-oriented understanding of meaningful everyday experiences (Schütz 1967), which informs my analytical approach. I therefore use the concept of the *lifeworld* to address the a priori aspect of everyday reality as acknowledged both by its common sense and by its taken-for-grantedness (Rasmussen 2014, p. 46). More simply, lifeworld experiences encompass and label people's immediate interactions with their surroundings, which in contemporary contexts naturally involve the online technologies we use, including music streaming services.

14.1 MUSIC IN THE CLOUD

'To stream' (music) refers to the process related to users' interaction with music streaming services, delivery systems that enable vast amounts of digital data to be stored in the 'cloud'—that is, the large data centres comprising networked servers connected to the Internet.³ Service providers transfer service-hosted content from the cloud to users via broadband Internet connections. This makes the music available without the need to download the files. The content is instead experienced in real time as continuous streams of data, but listening can also happen *offline* (implying access to files downloaded to a local device without needing an Internet connection).

To use as little bandwidth as possible, music streaming services tend to stream compressed audio files delivered in small 'packets' of data that can be buffered via Internet applications (apps). The apps are applied on AirPlay clients, desktops, laptops, tablets and increasingly on mobile smartphone systems (Maasø 2014) such as Android and iPhone. For the

end-users, the streaming technology means that vast music archives are made available via media devices that are often deeply embedded and heavily used in daily life. This suggests that music listening increasingly happens in multiple contexts and fills various purposes and roles within diverse modes.

Put differently, the cloud as an environment for experiencing music indicates that several socio-technological arrangements compete in shaping user engagements with music streaming services—including individual, contextual and musical aspects. These interact with the ways in which the technology takes on a somewhat uniform structure as a *listening format*. Like LPs, cassettes, CDs and MP3 files, a music streaming service also ‘denotes a whole range of decisions that affect the look, feel, experience, and workings of a medium. It also names a set of rules according to which a technology can operate’ (Sterne 2012, p. 7). From a user perspective, the format defines how music streaming as an everyday activity includes certain possibilities for action, which I will address further through the concept of *affordances*.

Affordance theory was originally developed as an ‘ecological approach’ to how individuals visually perceive, and act within, their environments: ‘The *affordances* of the environment are what it *offers* the animal, what it *provides* or *furnishes*, either for good or ill’ (Gibson 1986, p. 127). Gibson suggested that what individuals pay attention to when they look at objects are their affordances, not their qualities (1986, p. 134). The theory accounts for people’s interpretive capability and sociological gaze in understanding and experience, which enable technologies to be regarded in various ways according to the person’s individual, social, cultural and contextual references. Hence different environments/things afford different behaviours to different people (Gibson 1986, pp. 128–129).

Nevertheless, media, substances, surfaces, objects, places, other humans and also music bring with them affordances that partly determine their interaction with the individual. Consequently, what music streaming services afford also constrains what the user can do with/in them, yet at the same time they enable possibilities that have become inseparable from the user’s way of life (Gibson 1986, p. 139).

My interest is in the characteristics of the use of music streaming services, associated with an understanding of what those services *afford*—or, more precisely, how the format triggers distinct ‘performances’ of music related to action in diverse everyday contexts. With this dynamic approach, the study takes into account the interactions arising within the

socio-technological arrangement of each moment of streaming music, including the services, the person, the music and the context.

14.2 CONDITIONS AND CAPACITIES

In starting to identify what the cloud implies as the environment for individual music listening, the first condition of music streaming services involves *music abundance*. Currently each of the most popular services, like Spotify, Apple Music and Tidal, has more than thirty million songs in its database—an amount of music far beyond anything both dedicated fans and casual listeners have accessed via other formats. As a service condition, this abundance raises questions regarding the listeners' music management, service orientation and navigation, and affords user patterns that influence the music experience.

Music streaming services, secondly, comprise *social network structures* generally integrated into the platform. This makes the music easy to share, and enables users to connect with one another within the service. Also, it forces forward social awareness in one's online music listening, which affords individual and contextual (re-)negotiations of music as personal and social (Hagen and Lüders, in Hagen 2015).

A third condition of the cloud concerns the *intangibility* of the streaming format. This includes flexibility and mobility for users, via the ability to access and adapt music on diverse devices. In parallel, intangibility comprises notions of fluidity and ephemerality, as the streaming service business model derives from this intangibility as well and implies a whole new economy based on subscriptions. This makes the users renters of music access rather than owners of a product or a file. In contrast to ownership models of music distribution (for example, iTunes or Amazon), where consumers purchase a permanent licence to listen to a given song as many times as they want, music streaming services provide consumers with access to every song in the music catalogue for a limited period (Wikström 2013, p. 105).⁴ The access is managed through various payment systems, like free advertising-based services or monthly subscriber fees.

Furthermore, online subscription services follow distinct Internet configurations or *platform principles* (van Dijck 2013; Gillespie et al. 2014), managed by the service provider as part of the business model. These are not always visible in the user interface, but nevertheless they contribute to the composition of capacities for users to access, navigate, organise and listen to music.

The largest on-demand subscription services offer a set of features that represents a more or less standardised user arrangement. Through features requiring active participation, users are encouraged to organise and customise the service account, for example by making personal playlists and marking favourite albums. Users can also *queue* the order of songs or *shuffle* the order of album or playlist tracks during their listening. Most music streaming services include a search field and browsers with which to look up music.

These interactive features often work in tandem with arrangements that include varying degrees of automation. Through pre-manipulated and pre-compiled suggestions, music streaming services offer readily available selections highlighted by the service providers themselves. Carefully calculated metrics and algorithms shape the ways in which music is both supplied and accessed through these participatory and automated features. Providers analyse user data based on input from subscribers' past history (including listening patterns and social connections). The goal is to offer individualised content (Gillespie et al. 2014, p. 174) and continual adjustments are made accordingly, as happens elsewhere on the Internet, as aggregations of very dynamic processes and temporary arrangements are constantly tweaked in response to users' needs and platform owners' objectives (Feenberg 2009).

In sum, the cloud conditions and platform configurations constitute the technological foundation of music streaming services. This includes multiple capacities for users to act on, following multiple experiences. These are additionally defined by users' perception of the music streaming service, which involves the notions of risk, benefit, opportunity and constraint that arise in each context of use. The overall music streaming user experience is therefore a result of an individual negotiation of subjectivity, ownership, autonomy, (in-)adequacy, knowledge, memory, history, skills, cleverness and so on in the user–technology encounter.

14.3 METHODS

The shifting nature of individual music reception, our everyday contexts and experiences, and also the music streaming technology operating according to changing platform principles, are all variables in flux, which challenge an explicit depiction of the phenomenon under research. This backdrop motivated me to combine several methods, because I aimed to capture both the user narratives in the moments of listening and the musical,

circumstantial and technological contexts of these experiences. Also, it inclined me to dig deep into a restricted sample rather than to develop a broader cross-section.

Recruitment of informants happened from visits to high schools and releasing information about the study on Facebook and Twitter. The sample was skewed young, so as to guarantee data from individuals who turned to online platforms exclusively for their music experiences. These were complemented with people who had experience with physical music formats and pre-streaming online music formats too.

I ended up with eight Spotify and four WiMP Music users (ages 17 to 60, five male and seven female), who had maintained their subscriptions for at least one year, and now streamed music almost daily. These 'heavy users' presumably would be able to exploit the streaming technology and make deliberate choices according to their musical and contextual needs. The sample therefore reflects users who probably invest more time and effort than most people in their streaming services, in terms of developing innovative, distinct and skilled streaming practices. Importantly, the informants also stated that they were willing to share their thoughts and practices around this socio-technological interplay in their actual contexts of music streaming. All the informants turned out to be passionate music fans and produced reflections multiple times a day.

To avoid the potential distortions associated with retrospective inquiries (Hektner et al. 2007, p. 7), I began the data gathering with a diary study. Self-reported informant diaries also represent 'insider' accounts that the researcher cannot acquire in any other way. During four sampling periods (of two to three days apiece) I asked the informants to write diary entries on every music listening session using their streaming services. The beginning and end of these periods were signalled via SMS and email.

The entries followed seven pre-supplied questions that revolved around the context (location, date, time), the music (what music, from which source, why listen to it now, how the music was found) and the listening (a description of music use, parallel activities, the social or personal setting, distractions, related emotions and so on). The diary procedures were tailored to provide informants with optimal opportunities to report seamlessly during everyday life situations, adapted according to individual preference and already established media habits. Entries therefore took the form of handwriting in notebooks, emails, word documents,

screenshots from personal media devices or replies in spreadsheets created in Google Docs.

To complement the diary entries, I observed the informants' Spotify and WiMP Music accounts and their Facebook profiles. I had obtained consent to do this, both from the users and from the Privacy Issues Unit at the Norwegian Social Data Service. I also logged their listening via the 'scrobble' feature in the music service Last.fm, which enabled me to process and distribute information directly from the informants' music streaming. As a tracking mechanism, this allowed me to determine that listening patterns did not change significantly during the testing period, and to control the diary entries against the tracked listening.

I followed up with in-depth semi-structured interviews, looking at the informants' streaming accounts as we were talking. We were then able to discuss choices and experiences specifically in relation to the content and features embedded in the service. The interviews were recorded, transcribed verbatim and coded in HyperResearch. All of the informants were anonymised.

In coding and analysing the data, I began to unpack the human–technology encounters between listeners and music streaming services, encompassing evolving and contextualised experiences with both the music and the streaming technology. The present empirical account is neither comprehensive nor mutually exclusive with regard to possible everyday music streaming experiences, but it is an important place to start assessing the significance and societal influence of music through this hugely popular technology and pastime.

Overall, the diary method and Last.fm scrobbling represented a productive model for studies of online music listening habits that stand to benefit from immediate sampling. Furthermore, the combination of methods allowed for an accumulated understanding to emerge from the informants' personal reflections and my impressions of their online presence and mediated lives. The method design meant embracing and grappling with complexity in creative processes of interpretation from a complex, often messy field of data. Such thick description analyses are, however, particularly relevant when the research object is fragmentary and ephemeral, and the goal is a precise description of a point in time, producing a fleeting and contextual understanding of the world that resonates with informants' lifeworld (for more, see Hagen 2015). Some of the raw data is provided in Fig. 14.1.

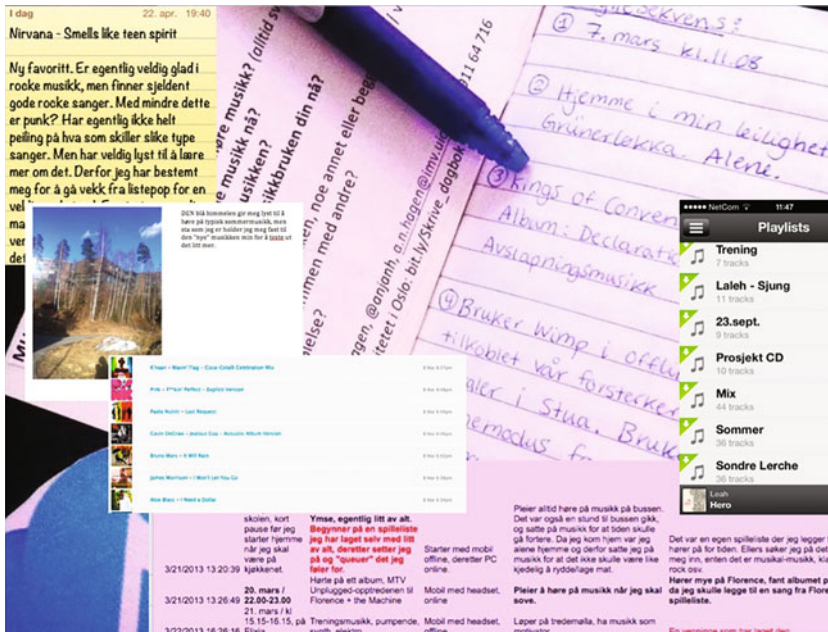


Fig. 14.1 Collage of raw data from the study

14.4 STREAMING THE EVERYDAY LIFE

One of the main observations in the study relates to the many situations where music streaming intersects with everyday life. The majority of the informants claim to listen to more music, more often, thanks to music streaming, a pattern also supported in related research (Maasø 2014). The cloud conditions of the streaming technology handled via personal media devices invite individual music management that enables music to follow listeners closely and flexibly in various contexts. Through executions that are routinised or happen on a whim, music streaming melds into what people do in the mundane. With (more or less) tactically operated personal practices, users draw on the services' multiple potential for music-related action, to respond to their contextual calls for music in any given moment.

The users' experiential responses to these processes depend on the perceived relationship between the music, the context, the listener and

the technology. For example, service hindrances to expected listening can trigger harm and annoyance, as when certain music cannot be accessed because the Internet connection is insufficient, or when no music can be accessed at all because the streaming device battery is flat.

However, when music streaming happens satisfactorily, listening develops various roles and functions along the way, as is also the case with the technology. The music streaming service hence ties into notions of identity and self-image, and relates to how individuals look at others. In short, music streaming is expected as part of the changing rhythms of everyday life.

For example, morning rituals go in parallel with acts of music streaming, a pattern that makes the streaming practice a ritual in itself. While Nathalie (age 17) puts her makeup on, she always puts a playlist on as well, or queues a few preferred tracks. In contrast, Louise (17) listens to the same single in the shower every morning and enjoys singing along. The length of the track helps her bathroom routine to keep on track. Anne (35) compares her morning listening with having a cigarette or a cup of coffee. Just as deprivation of nicotine and caffeine makes addicts stressed, this is also the consequence of missing her morning music to Anne. Her morning listening practices normally alternate between profound, orderly album listening and restless playlist skipping and shuffling, depending on her condition that day.

Likewise, music streaming is a bedtime ritual, intended to lull the informants to sleep. On his playlist, called *The Fleabag*, Erik (18) has compiled music ‘that in a sense lowers the pulse a bit’ (interview). Jenny (18) instead prefers to browse for ‘sleeping playlists’ in the streaming network. By typing strategic words like ‘sleep’ and ‘relax’ into the search field, she explores appropriate music from her bedside, until she falls asleep. With one of Nina’s (27) scrobble reports, a diary note follows that describes a ‘pillow talk’:

My husband and I have just gone to bed. We are soon sleeping. I tell him about the release of the new The Strokes-album on WiMP, and play One Way Trigger for him. Then I play Edie’s Dream by Suuns that I found earlier today I would like to hear his opinions—and he likes them. ... We talk about the tracks, and agree about The Strokes’ heavy a-ha-references. But we are tired now, so we turn off the music and fall asleep. (21 March 2013, 12:09 am)

Multiple diary notes describe how music streaming regularly fills gaps in the informants' everyday life. When Emma (18) has 'four minutes doing nothing, or maybe I wash the dishes or something, then I just put something on' (interview). Filling time with music also connects to the related notion of *killing time*, in tedious tasks and in commuting. Streaming along with riding the bus, the train, the tram and driving the car is extensive. Playlists designed for commuting, and practices of casual listening to random tracks and profound album listening, are integrated into the informants' recurring routines.

What the *music* affords in these situations, however, or how its properties work on the listener (DeNora 2000) varies individually and also inherently from one time to the next. Some informants emphasise that music streaming in such fragments of the everyday represents disentanglement from the presence of other people. Others claim that the music makes the time fly faster and the surroundings appear more interesting and meaningful, as *everyday mediations* that mould the listeners' immediate perceptions.

Also, the music affects the listeners' experiences of their body and self. For example, streaming can arouse in high-energy activities, like training, walking and running, because the music distracts and entertains: 'it makes me *not* focus on how hard the workout is' (Nathalie, 17, interview). Otherwise, the music augments the activity itself when energies, tempos and styles are matching: 'with high intensity [music] I walk faster, hence I always catch the bus' (Erik, 18, interview). Similarly, music stimulates concentration and relaxation, and helps listeners unwind from disturbing surroundings with streaming patterns customised for focus or recreation. To Nina (27), the music streaming service appears like a mental safeguard, shielding her from the noises and disruptions of the city. Music streaming makes her more confident to face people and challenging situations, she writes, and the music helps her hold focus when competing tasks seek her attention (diary note).

In all these examples, the streaming technology, navigated through distinct, personalised streaming practices, affords patterns of listening that modify the listeners' attention and present perception of the mundane. The properties of the music often relate to the listeners' moods in these contexts. Music (with its qualities for human moods or states of mind) is chosen purposely to fit certain moods or to achieve them. In parallel, the moods are mirrored as planned executions in the music streaming service,

and some informants therefore explain that the service appears like an extension of their emotional life (Fig. 14.2).

Diary: April 22, 2013 - Nathalie (17)

Time: 06:15

Playlist: "Never-ending"

Spotify, mobile, online, loudspeakers

Where: Home, in my room

What I do: Put on make-up and get dressed

Time: 07:15

Playlist: "Never-ending" + "Soundtrack of my life" (haha)

Spotify, mobile, online, headset

Where: on my way to school: walking, train and bus

What I do: Surfing online on the phone; reading blogs, checking Instagram and Facebook

Time: 10:40

Playlist: "Never-ending"

Spotify, laptop, online, headset

Where: At school

What I do: school work. I don't listen carefully, people chat around where I sit.

Time: 17:50

Playlist: "Never-ending"

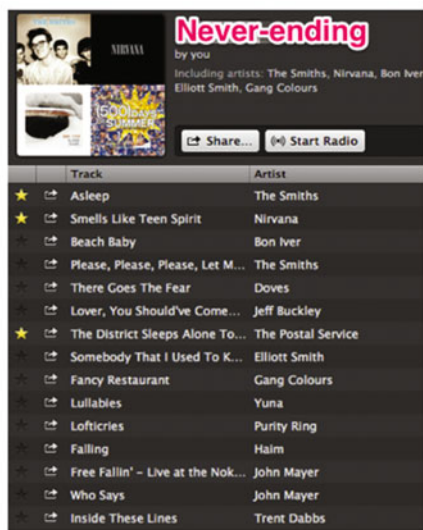
Spotify, mobile, online, headset

Where: On my way to the gym

What I do: Walk

Additional note: It is hard to note as I walk, but I think about how extremely fed up I am with the bad weather, and that I long for summer. I imagine my life was a movie and I listen to the music on high volume.

(I didn't find my headset, but my mother had an extra!)



The title of the playlist is changed with regards to anonymization of the informant.



Translation:
 Gray weather sucks
 I long for summer
 Life as a movie

Fig. 14.2 Screenshot of informant Nathalie's diary entries, presenting immediate reflections of music streaming in her everyday life

In other words, the music follows the streaming users' small and big everyday fluctuations, including celebrations, motivations, stimulations, joys, sorrows, disappointments, hardships, affairs and so on. As such, the service becomes an everyday companion used to actively enhance, shape or avoid certain moods. This manifests everyday music streaming experiences as highly personal and self-referential, as part of the listeners' self-hood, sociality and everyday way of being.

The material reveals that attention to the music often tends to be limited and fragmented when everyday life intrudes on the listening. Music streaming as a secondary activity is highly apparent. Therefore, a sense of 'backgroundness' influences how individual streaming practices develop and perform. For example, some users compose distinct playlists for *secondary listening*. Others prefer to rely on the service suggestions and algorithm-driven features to effortlessly provide them with (more or less) random music. The potential to exploit the automated part of the technology also affords seamless listening to benefit dinner dates, parties and other social gatherings. The music then represents desired atmospheres as a background element to informants' social contexts.

Interestingly, casual streaming, background listening and listening initiated with functional purposes also often include strong *aesthetic dimensions*. When the music strikes the listener and modifies their perceptions of the mundane, some listeners refer to mind-altering moments of great aesthetic value, particularly when the experience occurs serendipitously.

Aesthetically oriented music streaming otherwise tends to be performed as a planned act of listening, aligning with what some users call streaming for basically *listening to music*. Music streaming executed for pure listening and aesthetic responses triggers distinct practices from those associated with functional and casual streaming, for example: 'When I *actively* listen to music, then I turn up the volume and my attention and focus is different than when I stream music out and about' (Erik, 18, interview).

People attach diverse everyday activities to their acts of *profound listening*. Nina (27) and her husband create small quizzes related to the tracks they stream, and WiMP Music is regarded as a social hub to gather around at home. Profound listening also follows activities like cooking, cleaning, dishwashing and so on, in addition to more individualised activities. Louise (17) associates profound music streaming with her singing exercises, and Håkon (17) applies it as a tool along with practising his bass. Marius (24) and Jon (60) execute music streaming for pre- and post-listening (Kjus and Danielsen 2014) related to the live concerts they are attending.

Connected to the ways in which music streaming in daily life contexts tends to develop with pragmatic and personal practices attached, the specific mode of *music exploration* also seems to foreground customised streaming practices. Then the music is always in focus, yet it varies depending on whether the exploration is facilitated primarily by the service solutions or motivated by the users themselves. In this distinction, practices of music exploration strongly connect to users' notion of trust in the service, versus their sense of credibility and confidence in themselves or others, for the purpose of discovering music.

In order to conveniently retrieve preferred music, some users apply the inherent 'saving mechanisms' offered by the streaming services (for example, starring tracks or saving favourite albums). Others produce playlists, and these range from permanent ones made for keeping, to temporary ones made for only some single use before being deleted. Labelling playlists with compelling and personal titles is another way to ensure efficient everyday overviews of the music, on the go, in the flow and while doing something else.

Overall, music streaming happens with purposes and practices that vary from morning to evening, and from weekdays to weekends. Music streaming also provokes experiences that alter in emphasis between the technology, individuals, moments, purposes and contexts. Some user practices can be considered as processes of rendering streaming services more straightforward, to use and to access the right music for any given listening context. Other practices appear with logics that can be regarded as extensions of the everyday life itself. These include tasks, privacy, sociality, moods, relationships, routines and habits, as when weekly and daily planning happens in accordance with streaming service updates. In their attachment to the perception of everyday life, music streaming experiences often come to symbolise an imprint of listeners' current notions of themselves and their lives, when recalled at later stages in life.

14.5 A LIFEWORLD OF MUSIC STREAMING

Through the assorted examples I have presented in this analysis, the extensive role of music streaming services in everyday life is demonstrated. The ways in which playlist structures, streaming practices and musical content are intended to modify (or are modified according to) the rhythm of everyday life appear striking. Music streaming takes place in fragments of time and is perceived as time in fragments. The uses and experiences

flow into one another. Moreover, everyday music listening appears to arise naturally, immediately and conveniently, as affordances of the flexible and multifaceted music streaming technology.

Individual music ‘performances’ are executed seamlessly in an array of contexts, positioning music streaming as an ‘infrastructure’, consisting of the streaming ‘artefacts’, the user activities and the social arrangements developing around them (Livingstone 2005). The streaming experiences then must be understood in relation to the ways in which they are relational, routinised, established, internalised and ultimately taken for granted in everyday life (Livingstone 2005, p. 1). Put differently, through daily use the integrated relationship developed between the users and the technology affords a particular kind of taken-for-granted ‘mode of access’ to music, which affects how the music is experienced.

Importantly, music is no *less* important because it is taken for granted. On the contrary, I claim that the flexible applicability and multiple uses of the streaming technology (which afford this taken-for-granted position) rather enhance music’s role in people’s everyday life. Music experiences arise around simply listening to music, of course, but as part of daily tasks and activities music is also incorporated in the planning and execution of commonplace activities. Hence music underpins what belongs to the mundane, familiar and recurring: orders of everyday life that indeed deserve to be taken seriously, as the contexts where (many) people find themselves the most.

Streaming technology applied on personal media devices even seems to have become a part of what individuals expect of themselves, their time and their surroundings, and this makes the streaming experience intensely personal. Sloboda (2010, p. 501) confirms the self-referential level of mundane music experiences, where musical meaning predominantly appears in relation to non-musical contexts (like the environment or the body). According to this study, however, this level of experience is highly important for listeners’ relationship to music, because the associated listening follows everyday life’s schemes and structures, and shapes individuals’ immediate perceptions.

The music and the technology have thus both received a position that manifests the format as a lifeworld resource, including the ‘personal, tacit and reflexive considerations of personal life and integrity in the “re-embedding” of agency in the world of social systems’ (Rasmussen 2014, p. 52). The experiences of the lifeworld capture how use of this technology confirms, challenges, moulds, establishes and endorses notions of

identity and sociality, presence and time, through the perception of music in the mundane. Creativity and personal politics also inform the lifeworld of music streaming, as does self-reflexivity deriving from personal preferences and tastes, and notions of the structures of small and big (daily) life events.

Music streaming as everyday experience hence relates to notions of *lived space*, *lived time*, *lived body* and *lived relations*, as the four so-called existentials of the lifeworld (van Manen 1990). Concerning the listeners *felt space*, music streaming applies an essential influence to control, influence and regulate *lived spatiality* (van Manen 1990, p. 102). Music opens up and closes, focuses and frames spaces—that is, music surrounds listeners in ways that modify their spatial attention, and ultimately their lived experiences of themselves in these spaces.

The second ‘existential’ defines individual notions of *lived time* as opposed to clock time or objective time (van Manen 1990, p. 104). The experiences of an individual’s temporal being in the world are affected when music streams blend into the rhythms of everyday life. Furthermore, music streaming has an impact on user experiences of the *lived body*, where the listener’s *corporeality* is affected by music. For example, listeners feel fitter, happier, faster, more productive, comfortable, capable and so on because music’s properties and functionality induce or accompany experiences of a corporeal character, such as sleeping, concentrating, working out, running or dancing.

The last lifeworld ‘existential’ involves ‘the lived relation we maintain with others in the interpersonal space that we share with them’ (van Manen 1990, p. 104). Notions of *relationality* can be addressed in all the present examples of music streaming. This suggests that our musically informed experiences of the *lived self* intensely relate to notions of the *lived other* and social relationships in diverse contexts with this format.

In sum, human assumptions of what counts as real, normal, expected and preferred are stated in the lifeworld, and are here accompanied by music streaming services. In this realm of experience, individuals’ values, practices, habits and rituals also emerge. With our notions of everyday life tied to an online listening technology, the lifeworld is extended, differentiated and personalised. The notion of a music streaming-influenced lifeworld, by extension, therefore helps address music’s affective impact on everyday life, as an example of how ‘media technologies mediate and reproduce the lifeworld in different ways’ (Rasmussen 2014, p. 45).

As self-referential and taken for granted, the musical meaning with streaming services increasingly comes about in relation to the functions of the music in particular situations, as previously stated (for example by DeNora 2000). Despite the parallel potential of strong aesthetic music experiences blending into people's everyday lives, the study adequately confirms Sloboda's claim that mundane music experiences are not always *primarily* aesthetic in nature, but rather relate to a functional mode that highlights goal achievement, including mood regulation (2010, p. 508).

The cloud conditions of abundance and intangibility also allow for more prodigious listening. This weakens the relative intensity of the experiences: 'Frequent events tend to not be very surprising, so they tend to elicit weaker emotions' (Sloboda 2010, p. 495). This corresponds with music streaming as a secondary or background activity, perceived with fleeting or fragmented attention. Nevertheless, these various listening experiences, shallow or profound, maintain strong music-listener relationships, because listening has increasingly come to represent the *lived experience* of users' everyday life.

14.6 CONCLUSION

Dynamic and competing socio-technological arrangements shape the user involvements with music streaming services, so the format is at heart used, experienced and made sense of heterogeneously. The cloud conditions foreground ubiquity, flexibility and individuality with regard to the presence of music in everyday life. Music is further provided with complexity, fluidity and ephemerality, as well as *choices*, through a diversity of service features and user contexts. In fact, the socio-technological arrangement of music streaming services makes heterogeneity the essence of the format itself. Listening therefore occurs along a spectrum of involvements, distinctively balancing the competing factors influencing and facilitating the user experience.

To conclude, I argue that music streaming services do not afford single, fixed actions, but rather a range of *modes of action* that accommodate both careful planning and serendipitous encounters, as well as technology-facilitated practices and user-motivated ones. Music streaming services in parallel afford diverse *modes of experience* that relate to listening and encountering music, as well as dealing with the technology. Any understanding of the actual nature of individual music streaming practices must emerge within these modes of experience and action.

Regarding how the *human–technology* relationship with streaming services potentially influences contemporary *music–listener* relationships, my answer is rather to point to a threefold *human–music–technology* relationship. This interconnection is so closely integrated that the relationship itself becomes infrastructure in the user’s daily life. From this position, users give manifold roles to the music—roles that are individual, aesthetic and practical. Users’ relationships with music streaming therefore also appear ultimately heterogeneous, within changing contextual, emotional, attentional and affective frames.

Essentially, music is thoroughly and strongly present in streaming users’ everyday life. Music streaming contributes greatly to people’s daily life management, as shaped by adaptations and user habits, and by the perceptual, conceptual and practical understanding of what the technology *and* the music are and do for the user.

With this conclusion, this chapter has not only offered insights into how people currently live with music in everyday life through streaming services, which is extensive yet heterogeneous. It has also demonstrated how mediated interactions with the online technologies surrounding us have affective value within our immediate, individual processes of meaning making. More precisely, music streaming services fill a role as a malleable lifeworld resource—a role that affects personal integrity, identity and the lived experience of time, space, body and self—through involvements that are sensitive to moments, contexts, technology and music.

NOTES

1. This study was produced in association with the University of Oslo research project ‘Clouds and Concerts’, funded by the Research Council of Norway under grant number 205265.
2. The TNS Gallup numbers were counted just before Apple Music launched in July 2015.
3. Definition borrowed from [pcmag.com](http://www.pcmag.com). Retrieved 8 August 2015 from <http://www.pcmag.com/encyclopedia/term/39847/cloud>
4. See Chap. 10 in this volume for a charts perspective on the music streaming business model.

BIBLIOGRAPHY

- Bull, M. (2000). *Sounding out the city: Personal stereos and the management of everyday life*. Oxford: Berg.
- DeNora, T. (2000). *Music in everyday life*. Cambridge, UK: Cambridge University Press.
- Feenberg, A. (2009). Critical theory of communication technology: Introduction to the special section. *The Information Society: An International Journal*, 25(2), 77–83.
- Gibson, J. J. (1986). *The ecological approach to visual perception*. New York: Psychology Press.
- Gillespie, T., Boczkowski, P., & Foot, A. (2014). *Media technologies: Essays on communication, materiality and society*. Cambridge, MA: MIT Press.
- Hagen, A. N. (2015). *Using music-streaming services: Practices, experiences and the lifeworld of musicking*. Ph.D. dissertation, University of Oslo, Norway. Retrieved from <https://www.hf.uio.no/imv/forskning/prosjekter/skyogs-cene/publikasjoner/hagen2015.pdf>
- Hektner, J., Schmidt, J., & Csikszentmihalyi, M. (2007). *Experience sampling method. Measuring the quality of everyday life*. Thousand Oaks, CA: Sage Publications.
- Hennion, A. (2012). Music and mediation: Toward a new sociology of music. In M. Clayton, T. Herbert, & R. Middleton (Eds.), *The cultural study of music: A critical introduction* (2nd ed., pp. 249–260). London: Routledge.
- IFPI Norge. (2015, July). *Music in figures—Half of 2015*. Retrieved February 10, 2016, from <http://www.ifpi.no/flere-nyheter/item/98-musikk-i-tall-halvarstall-2015>
- Kjus, Y., & Danielsen, A. (2014). Live Islands in the Seas of recordings: The music experience of visitors at the Øya festival. *Popular Music and Society*, 38(5), 660–679.
- Livingstone, S. (2005). People living in the New Media Age: Rethinking audiences and users. *New approaches to research on the social implications of emerging technologies*. Oxford, UK: Oxford Internet Institute. Retrieved February 10, 2016, from <http://www.lse.ac.uk/media@lse/WhosWho/AcademicStaff/SoniaLivingstone/Publications%20available%20online.aspx>
- Maasø, A. (2014). *Surviving streaming: How insight into listening patterns and the streaming model provide maps for the future*. Germany: Berlin Music Week. Retrieved February 10, 2016, from http://www.hf.uio.no/imv/english/research/projects/cloudsandconcerts/publications/surviving_streaming_berlin_maaso_050914.pdf
- Nowak, R. (2014). Investigating the interactions between individuals and music technologies within contemporary modes of music consumption. *First Monday*.

- Retrieved May 21, 2016, from <http://firstmonday.org/ojs/index.php/fm/article/view/5550/4129>
- Rasmussen, T. (2014). *Personal media and everyday life: A networked lifeworld*. London and New York: Palgrave Macmillan.
- Schütz, A. (1967). *The phenomenology of the social world*. Evanston, IL: Northwestern University Press.
- Sloboda, J. (2010). Music in everyday life, the role of emotions. In P. Juslin & J. Sloboda (Eds.), *Handbook of music and emotion. Theory, Research, Applications*. Oxford: Oxford University Press.
- Sterne, J. (2012). *MP3: The meaning of a format*. Durham: Duke University Press.
- TNS Gallup. (2015). *InterBuss Q2 2015. Norges største understøttelse om internettvaner*, Report, received July 2015 from <http://www.tns-gallup.no/medier/internett/interbuss> (email).
- Van Dijck, J. (2013). *The culture of connectivity. A critical history of social media*. Oxford: Oxford University Press.
- Van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. Albany, NY: State University of New York Press.
- Wikström, P. (2013). *The music industry: Music in the cloud* (2nd ed.). Cambridge, UK: Polity Press.
- Williams, A. (2007). *Portable music and its functions*. New York: Peter Lang.

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