‘Under-the-Radar’ Electronic Dance Musicians:

Opportunities and Challenges with Digital Communication Technologies

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Abstract

This thesis aims to deepen our understanding of contemporary cultural production. It examines the experiences of 'under-the-radar' or grassroots musicians in electronic dance music (EDM), who use digital technologies to make and circulate music as part of their musical practices. Placing grassroots musical activities in the context of contemporary cultural production, this thesis asks two key questions: 1) to what extent have changes associated with digital communication technologies facilitated the musical *practices* of grassroots musicians? and, 2) how do these changes affect grassroots musicians' *experiences*? The analysis focuses on three elements of cultural production: a) motivations and working conditions; b) learning strategies and practices to make and perform music live; and c) the ways musical content is circulated and promoted online.

Qualitative research methods are used to investigate participants' experiences and practices as cultural producers. Data from ethnographic approaches include in-depth semi-structured interviews and participant observation (face-to-face and online). This microanalysis of musicians' activities is analysed in relation to a macro view of the political economy of online platforms and music industries, and the larger socio-cultural context of EDM.

This thesis argues that while digital communication technologies provide grassroots EDM musicians with significant benefits, there are still considerable dilemmas and problems facing those who take their musical practices seriously – most notably aspiring professionals. Benefits include output for creative expression, learning opportunities, lower(ed) entry-level requirements for making and playing music, and convenient online music circulation. Main challenges include building a career, entrepreneurial and networked sociality, promotional incentives, and structural inequalities. A key objective is to move beyond perspectives that overemphasise advantages offered by digital technologies to cultural producers.

Keywords: Cultural Production, Popular Music, Electronic Dance Music, Grassroots Musicians, Cultural Labour, New Media

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Chapter 1
Introduction

> Popular music is termed popular not only because it appeals to a mass audience but also because virtually anyone can make popular music, even though not everyone can "make it" (financially, creatively, etc.) (Jones, 1992, p.11).
>
> People make their own music, but only in the circumstances in which they find themselves (Frith, 2016, xii).
>
> The near-complete shift from analogue to digital has made real all that nineties cyber-rhetoric about techno as a post-geographical music. Then again, although you can 'attend' clubs like London's (and now Los Angeles's) Boiler Room via a live stream, dance culture itself remains a stubbornly analogue experience. You have to be there, amid a hot sweaty crowd, to truly experience it (Reynolds, 2013, p.726).

1.1 Context

Making popular music matters. From a commercial standpoint, recorded music and live performances provide work for musicians and others who rely on revenue from popular music, goods for the music industry, and content to be circulated by online platforms.[1] Beyond the commercial sphere, music and musical activities offer cultural and social meanings for individuals and societies, as well as pathways for self-realisation, creative expression, agency, identity building, and socialisation. Clearly, cultural production enriches the lives of musicians and the communities they are

[1] The 2016 Global Music Report (IFPI, 2016) highlights the rise of revenue from paid subscription online audio streaming platforms such as Spotify.

associated with, but because these benefits also rely on the conditions that cultural producers are subjected to, its potential for good can be reduced/constrained. Therefore, given the contributions cultural production offers, the examination of musicians' practices and experiences as contemporary cultural producers further enriches this mode of cultural production, enhances its individual and social value, and shows how other forms of cultural production can also be valuable.

My interest is in grassroots musical production, in particular grassroots musicians and their experiences and practices as cultural producers in the early twenty-first century. The focus on these grassroots – or 'under-the-radar' – musicians is based on a recognition that grassroots cultural production plays fundamental roles for those who pursue music-making seriously, the industries that rely on them for cultural goods and as a talent reserve, but also as social and cultural activities with wider implications for society. It also acknowledges the importance of grassroots cultural production for groups of people who would otherwise remain largely absent from the cultural landscape, or, to borrow the term from cultural studies, the *dominant culture*. In this sense, grassroots cultural production has the potential to contribute to the formation of social identities as well as in increasing diversity of cultural representations. Alongside the production of cultural texts, grassroots cultural production is also important as an activity in itself, as it provides pathways for learning, creative expression, self-realisation, leisure, socialisation, identity, and a sense of belonging. Thus, the investigation of musicians' activities as cultural producers is informed by the notion that media production has the potential to enrich the lives of those directly involved in it, as well as the communities they are associated with; and, when constrained, limit these experiences.

The focus on grassroots cultural production is also a response to claims that digital technologies enable a better and fulfilling life. In the case of grassroots musicians, these claims suggest that technology – in the form of digital communication networks, online platforms and devices for audio recording and manipulation – facilitates the production, circulation, and promotion of music. Burgess and Green (2009) highlight that these accounts suggest that "raw talent combined with digital distribution can convert directly to legitimate success and media fame" (p.21).

The website for Apple's entry-level audio recording and production software 'GarageBand' claims that it provides "an intuitive, modern design, it's easy to learn, play, record, create and share your hits worldwide. Now you're ready to make music like a pro" (Apple, 2017). SoundCloud, a leading online platform for music circulation used by grassroots musicians, boasts that, "music and audio creators use SoundCloud to both share and monetise their content with a global audience, as well as receive detailed stats and feedback from the SoundCloud community" (SoundCloud, 2017a). While claims by commercial companies have clear promotional functions, they also reflect what Mosco calls the myth of the *Digital Sublime* (2005). He describes it as the idea that, "powered by computer communication, we would […] experience an epochal transformation in human experience that would transcend time (the end of history), space (the end of geography), and power (the end of politics)" (2005, pp.2-3). Such myths are fuelled by ideological shifts that occurred during the early development of personal computers. Streeter (2011) has shown that, from the 1960s onwards, "increasing numbers of individuals began to reinterpret the act of computing as a form of expression, exploration, or art, to see themselves as artist, rebel, or both, and to find communities with similar experiences that would reinforce that interpretation" (p.1).

Digital technologies and online platforms provide a mixture of opportunities and challenges for their users, including those who use them for musical production and distribution. On the one hand, musicians have the means to create and circulate music through these platforms, engaging in processes of creative expression that foster the construction of social meaning via communication with peers and audiences, often allowing for richer and better representations of the self (boyd, 2011, 2014), the creation and maintenance of social bonds and the foundation for networks of sociality. These activities are not only filled with meaning for those who take part in them, but are indicative of the potential digital communication technologies have to foster and mediate socio-cultural practices at a grassroots level (Feenberg, 2009), notably through participatory practices of content creation (Jenkins, 2006a, 2006b; Burgess and Green, 2009; Delwiche and Henderson, 2012; Jenkins et al., 2013). On the other hand, musicians struggle with negative aspects that remain features of digital technologies and online platforms, including the difficulties of being heard and noticed by others, power imbalances in how music is circulated online, as well as

dilemmas regarding musicians' online identities in multiple profiles, online sociality, and the kind of content shared through platforms.

1.2 Research Questions

In this thesis, I analyse how grassroots musicians use digital technologies to facilitate their musical activities, and conversely, how these technologies reinforce old challenges and create new ones. The research *problem* features the interplay between technological developments and grassroots cultural production. There are two key *research question*s:

1) to what extent do changes associated with digital communication technologies facilitate the musical practices of grassroots musicians?
2) how do these changes affect musicians' experiences?

To answer these questions I analyse three aspects of grassroots cultural production:

a) musicians' motivations and production conditions;
b) learning strategies and musical practices for production and live performance;
c) circulation and promotion of music via online platforms, specifically through user-generated content (UGC) platforms.

A key point in this thesis is that under-the-radar musicians benefit from various forms of technologies, and that despite these benefits there are still considerable dilemmas and challenges facing those who take music seriously, most notably musicians with career aspirations. The potential for good is reiterated in optimistic discourses about digital technology, and the benefits offered are clearly emphasised by the tech sector and those who adopt a largely celebratory overtone. Moreover, this thesis argues that when internalised by musicians, technological utopian discourses confuse and obfuscate negative aspects about their conditions as cultural producers, potentially increasing the disadvantages. We can see these internalised discourses not only in how musicians think and talk about the upsides and downsides of cultural production, but also in the ways that their musical practices are conducted on individual and collective levels. The degree to which musicians have internalised technological optimism varies, and while it permeates sanguine notions about how technologies facilitate

cultural production and musicians' self-realisation, serious and experienced musicians are sceptical, when not cynical, about celebrated notions of the effectiveness of technologies for music-making in democratising cultural production, musicianship, and sociality. Thus, a key objective of this thesis is to move beyond perspectives that overemphasise the advantages offered by digital technologies to cultural producers, and it does so by investigating the experiences and practices of grassroots musicians.

1.3 Key Terms

The concepts of practices and experiences adopted here are intentionally broad, and are designed to address a wide range of musicians' activities. In many studies of popular music, and of the media in general, production practices are 'hidden' in the literature because of the focus on the final product – the musical work and the recording, or the film and the television show. In her book about amateur musicians, Finnegan (1989, p.8) argues that:

> most misleading of all in this context is the powerful definition of music in terms not of performance but of finalised musical *works*. This is the more so when it is accompanied – as it so frequently is – with the implication that these works have some kind of asocial and continuing existence, almost as if independent of human performances and social processes, and that it is in musical 'works' what one finds aesthetic value.

Following Finnegan's framework, this thesis is not primarily about social theory, thus, as used here the term practice has "no great theoretical import" (Finnegan, 1989, p.9). It does however embrace two levels: micro (like the use of a musical instrument) and macro (socially embedded). In this sense, it follows Bourdieu's notion of practice as "a form of knowledge in action" (Bourdieu, quoted in Théberge, 1997, p.4), and Small's (1998) *musicking*, which frames music as a process rather than an object.

Experience refers to musicians' everyday experiences. Highmore (2002) highlights the paradox of 'the everyday' as it includes "both ordinary and extraordinary, self-evident and opaque, known and unknown, obvious and enigmatic", capturing "both relentless routine and the marker of social distinction" (p.16), as in the context of global capitalism everyday life "becomes an arena for cultural survival and revivals, the reconfiguring of specific traditions under the domain of the modern" (p.176). This

ambivalence recognises musicians' often paradoxical experiences as cultural producers, whose activities are caught up between worlds: musical activity as a blend of work and leisure; the dull search for new music and the thrill of "breaking" a song to an audience; frustratingly troubleshooting software problems in home studios and the sense of achievement of rendering a track.

The attention to musicians' practices and experiences draws from growing work about cultural labour (specifically in the media industries) and media production studies. It follows concerns about working conditions and wellbeing of cultural producers. By focusing on *grassroots* producers, this thesis aims to contribute to our larger understanding of cultural production in the twenty-first century, because, as Toynbee (2000) notes, "whereas film and television are inevitably *provided* by a remote and large-scale industrial apparatus, popular music may be owned and produced *within communities*" (p.110, original emphasis). Moreover, music was the first of the media industries to feel the effects of digitalisation (Wikström, 2009) in production, circulation, and consumption. Therefore, the focus on *music production* also contributes to broadening the scope of analysis of contemporary cultural production, as investigated in the field of media and communication at large, and particularly in media production studies and its historical interest in cultural production for television and film.

Early during fieldwork it became clear that the term 'amateur' was inadequate to refer to these musicians. Many objected to the term because of its negative connotations, namely the lack of skill, commitment, and knowledge associated with amateurism.[2] Addressing the issue in the late 1980s, Finnegan (1989) explains that for local musicians, "the emotional claim – or accusation – of being either 'amateur' or 'professional' can become a political statement rather than an indicator of economic

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[2] In his work about serious leisure, Stebbins (1979) argues that those he studied did not reject the label amateurs because "at least the ones with whom I had had contact, see no mediocrity in their performances and contribution" (p.18). This was not the case in the present research.

status" (p.16). In the past decade, debates about amateur media production have gained traction in media production studies, largely because of "the extraordinary profusion and proliferation of amateur media content made possible by the internet" (Hunter et al., 2013, p.11).[3] Debates about the differences between amateurs and professionals have been significantly changed by digital technologies, and Lobato et al. (2011) emphasise the continuity of the spectrum of amateur-professional in UGC production. They argue that,

> UGC [is] not in opposition to "producer media", or in hybridized forms of combination with it, but in relation to a concept that connects new media studies with wider social science: that of informality in media production, distribution and consumption (p. 2).

Digital optimism discourses are commonplace among electronic dance music producers – particularly younger producers and/or beginners – and especially with regards to production and circulation of music facilitated with networked computers. The result is a further conflation of the amateur-professional divide in contemporary grassroots cultural production. To help the analysis of how the experiences and practices of under-the-radar musicians vary throughout the amateur-professional spectrum I have adopted three terms: *casual musicians* is used to refer to musicians with low levels of engagement and commitment to musical activities; *serious musicians* have high-levels of engagement, commitment, knowledge, and in the case of veteran musicians, also typically prestigious positions and roles in the world of EDM; and *aspiring professional musicians*, who are serious about their activities and harbour career aspirations in music.

Throughout the thesis the two terms used to refer to these musicians are *under-the-radar* and *grassroots*. The later follows Finnegan's prescient suggestion to move beyond the amateur/professional distinction in grassroots music production, and

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[3] Like writers, poets, and photographers, musicians have historically had more access to the means of production than other cultural producers such as filmmakers or television – the two primary activities analysed by media production studies.

instead consider what she calls “local musicians” within a “complex continuum with many different possible variations” (1989, p.14). As a result, even though grassroots musical activity can be found throughout the continuum (referred to as spectrum henceforth), grassroots musicians concentrate around the middle grey area.[4] The term under-the-radar was inspired by the BBC Radio Leeds show “Introducing”, described as featuring “the best unsigned, undiscovered and under the radar music from around West Yorkshire” (BBC, 2017). The show provides a platform exclusively for Yorkshire-based musicians to showcase music and get noticed by the radars of audiences and record labels. In the context of this thesis, the term “under-the-radar” also acknowledges that social media and online platforms operate as another form of radar, and that by circulating and sharing music through them many grassroots musicians are also promoting themselves in ways designed to attract enough attention to make a symbolic bleep in the radars of other users.

The thesis delves into the world of grassroots musicians involved with *electronic dance music* (EDM). While they do not live in secrecy, such musical activities are frequently overlooked, and as a result they often go unnoticed, operating “under-the-radar”. Some of the participants include an accountant who balances not only chequebooks, but also a full-time job with regular weekend travels to play records in cities that her co-workers visit only during summer vacations. Other participants include a socially awkward teenager, who shuns friends’ invitations, spends most of his time alone in his bedroom studio, and who by his eighteenth birthday had already released a series of tracks on the same label his favourite producers and DJs are signed to. A junior doctor who avidly collects records, and chooses to play in public only early in the evening so that he can have a good night of sleep before heading out to the work next morning. And an ex-construction worker in his mid-forties, who after being ‘made redundant’ after the 2008 financial and housing crisis decided to pursue the dream of music as a full-time occupation. They are accompanied by many others

[4] Section 2.3.1 deepens the discussion about the differences and similarities of musical activities throughout the amateur-professional spectrum.

who, alongside day jobs and family care, spend considerable time and efforts running independent record labels, writing and publishing original and remixed music, promoting events, and other music-related activities. In spite of their differences, their musical lives are characterised by features such as commitment, dedication, enthusiasm, frustration, and, above all, a professed deep love for music and all that it entails.

The term *electronic dance music* is used to refer to a number of musical styles that share fundamental elements, as well as cultural and historical roots (discussed in section 2.4). McLeod (2001) uses the term “electronic/dance music” to refer to the genre, and he explains it is an “umbrella term” used to:

> label a heterogeneous group of musics made with computers and electronic instruments – often for the purpose of dancing. Electronic/dance is a metagenre name that is vague enough to describe the broad variety of musical styles consumed by a loosely connected network of producers and consumers (p.60).

The genre is known for rapid change, richness in diversity, and a great variety of subgenres (McLeod, 2001, p.60; Reynolds, 2013, p.7). Following McLeod’s suggestion, my use of the term EDM is not “an attempt to ignore the very concrete differences between the way these subgenres are consumed and produced” (2001, p.61), rather term EDM is used throughout the thesis to refer to the wider genre, with subgenres referenced by their own specific names. Therefore, EDM in this thesis should not be confused with the subgenre ‘edm’, developed in the past decade largely in the US by musicians such as Skrillex and Steve Aoki.[5]

There is strong consensus among popular music and dance culture scholars that the origins of what came to be known as EDM go back to the early days of disco. Emerging in New York during the mid-to-late 1970s, disco music was a blend of soul, gospel, rhythm and blues, with European electronic music (e.g. Kraftwerk and Can)

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[5] For more information about the subgenre of edm see Reynolds (2013, pp.724-725).

influences. It had a predominantly core audience of male gay African Americans and Latinos (Fikentscher, 2000, p.6; Lawrence, 2004, p.1) who shared common goals, including the pursuit of leisure through dancing and other bodily sensorial experiences (it shares mythical foundations with other twentieth century youth music cultures rife with sex, drugs, and hedonism). The term *dance music*, Fikentscher (2000) argues, was promoted by the music industry to dissociate newer subgenres such as house and techno from its gay roots, but “as much as a neutralizing effect was desired”, “dance music carries as much a post-disco connotation as a [sic] anti-disco connotation” (pp.11-12).[6]

The newer subgenres of house and techno embraced enthusiastically the sonic possibilities available through electronic devices such as synthesizers, drum machines, samplers, and sequencers, and they emphasise machine-like sounds, synthetic aural textures, and the unmistakable regularity of the drum machine-made four to the floor beat. Unlike early 1980s r&b and hip-hop, the dance music *beat* is characterised “by the way the accents are flattened [with] considerable implications for how temporality is constructed” (Toynbee, 2000, p.136). As a result, in EDM the passing of time is blurred by the “continuous bass drum pulse gestures” (Toynbee, 2000, p.136), further enhanced by DJs blending songs seamlessly using twelve-inch dance music singles in vinyl records – the defining musical media format of early EDM cultures (Straw, 1991; Thornton, 1995; Gilbert and Pearson, 1999). By the end of the 1980s house and techno crossed the Atlantic via the global network of dance clubs, and once in the UK it played a pivotal role in the creation of acid house, and later in the early 1990s rave, jungle and drum ‘n’ bass. Seen within a broader context, the growth of dance music in the 1990s is part of a period of optimism in Western democracies, marked by the end of the cold war, neo-liberal globalisation, and the consolidation of the European Union. It is also the decade when the recorded music

[6] The 1977 single “I Feel Love” by Donna Summer and producers Giorgio Moroder and Pete Bellotte is frequently referred as a turning point in the transition from disco to house, and the song has clear elements of both.

industry reached its commercial peak, driven primarily from the sales of music in digital format (such as CDs).

There have been many studies about EDM. The late 1990s saw a number of works about the history of the genre, written by insiders and music critics (Collin, 2009; Reynolds, 2013) with a recent valuable contribution by Matos (2015). Some draw attention to the role of DJs in EDM's development in the US and Europe (see Brewster and Broughton, 2000) and Brazil (Assef, 2008). Haslam (2002) focuses on the rise of superstar DJs in the 1990s, and the significance of clubs in shaping dance culture and EDM in the UK (2016). Academic scholarship has been instrumental in understanding issues about creativity, musicianship, and the intersections with institutions (Toynbee, 2000), with Gilbert and Pearson (1999) providing a wide-ranging sociological analysis of EDM, and Théberge (1997) focusing on technology as consumerism in EDM. Sarah Thornton's *Club Cultures* (1995) is another good example of how scholarly rigor, informed by critical thinking from the cultural studies tradition, contributes to our understanding of club cultures. Work inspired by feminist theory has addressed long-standing issues about genre in EDM, with significant contributions made by Pini (2001), and more recently Farrugia (2004, 2012), Gavanas and Reitsamer (2013), Gadir (2016, 2017a, 2017b), and a special edition of the Journal of Electronic Dance Music Culture (DanceCult), edited by Farrugia and Olszanowski (2017), dedicated to "Women and Electronic Dance Music Culture".

My interest in the genre derives from its embrace of technology as a tool for self-expression, creativity, innovation, and the socio-cultural implications dance cultures have had on marginalised groups and popular culture at large. Their sonic creations with machines and devices for audio recordings parallel the technical accomplishments of geeks and early computer programmers who also embraced a do-it-yourself (DIY) ethos in their pursuit to shape an idealised vision of the(ir) world, albeit limited to the conditions of the time. Early dance cultures, such as disco and house in the US and acid house and rave in the UK, offered alternatives to the largely conservative dominant cultures of their time, and challenged the celebration of individualism as neoliberal capitalism gained global momentum after the break-up of the USSR. Looking at a globalised music culture as a way to foster commonalities and empathy, early dance cultures pounded their way into mainstream popular culture

at a time of peak profits made by the music industry with the sales of CDs. Critics often accuse dance music of escapism and bareness in its aesthetics of repetitiveness – with some degree of accuracy – yet they often fail to point out the liberating force of dancing and being together, the empowering feelings of creating from old and obsolete objects, and the utopian discourses that drives it. Fast-forward twenty years and dance cultures seem to have lost much of their progressive original ideals, but in the context of rising nationalism, deep competitive individualism, and failing post-industrial economies, dance music and dance culture may offer valuable lessons.

1.4 Rationale and Argument

Electronic dance musicians are an under-explored example of a group of people who by the mid-1980s had largely embraced an enthusiastic discourse about the potential benefits of technology for cultural production – particularly digital technologies in making music on a mass, yet, grassroots level. In other words, EDM is a genre "deeply invested in technology" (Farrugia and Swiss, 2005, p.30). Taking on a similar role to that of an "organic intellectual", these EDM musicians largely relish the transformative (and mostly positive) aspects provided by technology in making and playing music, and adopt them to expand their creative and expressive outlets.[7] Their enthusiasm for machines to produce culture (and to enhance life) precedes similar views later associated with networked personal computers as these transitioned from the workspace into the social and cultural realms. However, as mentioned earlier, there are negative aspects associated with the adoption of technologies that reinforce challenges and problems for grassroots EDM musicians.

My background as a working musician in the world of EDM provided the initial motivation for this thesis. For little over a decade since the late 1990s I was immersed as an independent musician, producer, DJ, event organiser and sound designer with

[7] Gramsci (1971) suggests that every social group produces its share of organic "non-traditional" intellectuals, who provide "leadership of a cultural and general ideological nature" (p.150).

an animation studio in and around the metropolitan area of São Paulo, Brazil. Being an insider in independent music and media production provided insights into the changing landscape cultural producers operate in, and how they adapt according to their aspirations and motivations. In Chapter 3 I discuss the benefits that my musician background provides, as well as the issues it raised when conducting academic research. For now though, it is important to mention that these issues have been taken into account throughout the research process, and that the position is common among popular music scholars.

This thesis argues that the ambiguity resulting from the mixture of benefits and challenges is not only the result of musicians' aspirations, it also reflects larger issues associated with cultural production in post-industrial societies. As a form of cultural labour, grassroots music-making is characterised by conditions similar to those professional musicians face, a position that brings in a second set of benefits and risks related to the kind of work and labour they execute as musicians. The benefits provided by *cultural labour* performed by grassroots musicians include the potential to increase self-expression and creative output, the construction of symbolic meaning, as well as building communities and meaningful social interaction. On the other hand, musicians are often faced with precarious working conditions, low (or non-existent) pay, poor and/or complex work/music/life balance, high levels of potential frustration, and a sense of worthlessness as they operate within environments that emphasise and overvalue financial rewards.

Another significant issue musicians contend with is the extension of their cultural labour activities on online platforms as a form of (largely unpaid) work. Their online activities are a driving force of the business model of platforms and a significant source of profit capitalised through data-mining of user behaviour and the sales of advertising. The balance between opportunities and challenges available for grassroots musicians is therefore associated with the articulation of interests by the three major parties involved: *musicians*, the *music industry* (notably rights holders), and the *tech sector*. Moreover, the distribution of opportunities and challenges affects cultural production and circulation, which has important consequences for the kinds of cultural goods that are produced and made accessible to global audiences via digital

communications networks (most notably via online platforms using the internet infrastructure).

This thesis demonstrates that the balance between benefits and challenges is reflected in musicians' markedly different experiences when using online platforms. For those taking a casual approach to music activities – defined by low levels of user expectations, commitment, skill and knowledge – the opportunities afforded by online platforms are perceived as largely beneficial, with few(er) potential downsides and less risk. The main benefits of online platforms for casual musicians include: access to information about music-making (via formal and informal online educational pathways); increased access to tools to make (such as software for audio manipulation) and play (such as music in digital format being circulated online); the possibility to self-publish music (including remixes and recorded DJ sets); and communication channels to circulate music between musicians and audiences that bypass the need for third party mediation (like record labels) and the restrictions imposed by gatekeepers (including magazines, radio).

Conversely, serious musicians and aspiring professionals face a complex scenario, filled with dilemmas and contradictions. Among the most significant are the allure of cultural production (potential for creative expression and self-realisation) and lower entry-levels for beginners, which are associated with increased individualistic and (negative) competitive behaviour, and damaging consequences for musicians across the spectrum. Abundance of music online has also contributed to shifts in the values attributed to recorded music, and in this sense aspiring professionals must adapt to the degree to which promotion and advertisements drive revenue while managing subcultural expectations about how to do so (the "selling out" issue). Strategies to be noticed from the crowd often involve having a strong online presence, which requires not only promotional acumen, but management of multiple online identities and profiles (with implications for privacy, sociality, and resource management). Challenges also include the notoriously complex copyright legislation, and the risks potential infringement have carry serious negative consequences for musicians' efforts to maintain an online presence (complicated further by the fact that EDM relies heavily on sampling and music from third-parties). And as UGC platforms allow for self-publication, it is marked by a lack of control of uploaded content, associated with

the articulation of interests between major record labels and the tech sector, which has had a detrimental effect on serious musicians' experiences.

1.5 Outline and Organisation of the Thesis

Chapter 2 outlines the analytical frameworks used to investigate grassroots cultural production, and provides an overview of the intellectual traditions and fields of study the thesis draws from and aims to contribute to. There are three sections. The first outlines theories of cultural production used in the fields of media and communication and media production studies – including approaches from other fields such as political economy, cultural studies, and sociology of culture. The second section moves towards popular music studies and highlights how it has investigated grassroots musicianship, music-making, and the intersections of music and technology. It includes a discussion about the key concept of *genre*, suggesting it is more than texts – genres are characterised by a set of *shared values*, and genre analysis might usefully explore such values, as I do with EDM in this thesis. The third section builds from the previous discussion about genre, and outlines core values of EDM, namely: 1) community and sociality in the common pursuit of leisure, and egalitarian ideals; 2) the embrace of technology as discourse and experimental practices with (old) machines; and 3) a strong DIY ethos, power, and autonomy in EDM.

Having laid out the theoretical frameworks, Chapter 3 addresses the methods used via a discussion about the research pathway. Alongside the research questions, it shows that the broader concerns raised in this thesis are better served through qualitative methods. I have designed the investigation of grassroots musicians' experiences and practices using qualitative data and an ethnographic approach, which is suitable for a micro-level analysis of musicians' practices and experiences. Moreover, I also draw on a macro-level view in the analysis of working conditions of cultural producers, music education for musicians, and the political economy of online platforms. The macro view provides background and context to participants' actions and discourses as cultural producers. This approach is intended to bring micro and macro-level analyses closer; an analytical method used in media production studies (Mayer et al., 2009; Havens et al., 2009; Banks et al., 2015; Paterson et al., 2016) and cultural labour (McRobbie, 2002; Hesmondhalgh and Baker, 2011; Stahl, 2013; Conor, 2014). These

methods also follow traditions in popular music studies whose approach to the study of music has emphasised how music production is influenced by the music industry (Frith, 1978; Toynbee, 2000), technology (Jones, 1992; Born, 1995; Théberge, 1997), published media and audio formats (Thornton, 1995; Théberge, 1997; Bartmanski and Woodward, 2015), social media and musicians (Baym, 2007; Kruse, 2010; Mjos, 2013), and UGC platforms (Beer, 2008; Allington et al., 2015).

The following three chapters offer an in-depth view of grassroots EDM production based on analysis of the empirical data. While one of the main concerns of this thesis is musicians' use of online platforms, such activities are analysed within the larger context of cultural production for three main reasons. First, musicians use online platforms throughout the whole process of cultural production – from learning, to accessing tools (songs, samples, instruments and software), connecting with peers and audiences, and circulating and promoting music. Second, the ubiquity of musicians' use of online platforms is intertwined with activities outside these online worlds. For example: music education via online tutorials runs alongside formal music technology courses and embedding oneself in the culture of EDM; and the value attributed to publishing music in physical formats (like vinyl) is associated with widespread, yet unremarkable, self-publishing of digital music files via UGC platforms. Third, musical activities are embedded within musicians' wider social and economic realities, which both enable and constrain their musical practices and experiences. Thus, each chapter addresses musicians' online activities within the broader processes of cultural production that they are part of – namely motivations and production conditions, learning and making music, and finally circulating and promoting music.

Chapter 4 begins the analysis of grassroots EDM musicians' activities as a form of *cultural labour*. It frames their motivations and production conditions as a form of *labour of love*, characterised by the coexistence of pleasures and burdens associated with the work needed to sustain musical activities. The chapter argues that motivations and working conditions are important for grassroots cultural production because musical activities are deeply influenced by musicians' aspirations as well as their material and working conditions. Moreover, it demonstrates that despite optimistic claims identified by Burgess and Green (2009), that raw talent and digital circulation

of media catalyses talent into success and fame, carving a career is still very difficult for aspiring professional musicians.

The chapter begins with a discussion about what motivates grassroots musicians, and uses an analytical framework that distinguishes between intrinsic and extrinsic motivations. It then moves on to a discussion about the precarious conditions musicians face as cultural labourers, and how in their search for material wellbeing, grassroots musicians balance low- or un-paid musical activities with other forms of paid work. Faced with conditions typically associated with cultural labourers (like precarious working conditions, long hours and low pay) grassroots musicians have developed a network of revenue streams to subsidise their musical activities. While these streams may include some form of paid music-related work, they frequently include other forms of paid work (such as day jobs and gigs), as well as unpaid music-related work performed in exchange for immaterial benefits (like exposure and promotion). In exploring the mixed aspects of cultural labour I suggest that under austerity measures, precarious working conditions have contributed to increase musicians' negative experiences (like insecurity, doubt, anxiety). The last part of the chapter examines how grassroots musicians must balance resources from music, work, and life to support cultural production. The evidence suggests that, like other forms of cultural labour, grassroots music production is marked by inequalities (more clearly along the lines of gender and class), and the experiences of musicians across the spectrum vary according to their aspirations, working conditions, and the availability of resources.

Chapter 5 examines how grassroots EDM musicians use digital technologies to learn, make and play music. The analysis is divided into two parts: first, the processes and strategies for learning how to make and play EDM; and second, the tools and skills employed by grassroots musicians in studio work and live performance. Learning and production practices (like DJing, studio work) are examined in the same chapter because they are deeply connected (Green, 2002). With regards to educational pathways, the chapter argues that there has been an increase in educational opportunities for grassroots musicians, through what Green defines as both *informal* and *formal* learning practices (2002, pp.3–6). Moreover, the chapter demonstrates that EDM musicians rely much on informal learning (self-teaching, peer-support, and

observation), and argues that online platforms (UGC platforms and musicians' forums) operate largely as informal learning. The benefits of online informal learning are accompanied by problems, such as pressures on content uploaders to "professionalise" (Lobato, 2016), generate revenue from advertising, and technically-oriented content (troubleshooting) that largely neglects the complexities required for fully-fledged musicianship. The chapter then contextualises the increase of online informal learning practices alongside the wider growth of formal education for EDM musicians, which Born and Devine (2015) have identified in music technology courses available in higher-education institutions in the UK.

The second part of Chapter 5 examines grassroots EDM musicians' use of tools and skills to make and play music. It argues that affordances provided by networked personal computers, coupled with greater access to digital media via computer networks, facilitate grassroots EDM production. In this sense, the networked computer has become the central production device in home studios (equipped with music production software). The significance of software for audio manipulation in grassroots musical production has been largely overlooked in scholarly research, and this section contributes to closing this gap. Entry-level requirements have also lowered for DJs who play EDM in digital format – the ubiquitous MP3, alongside uncompressed digital audio formats (WAV, Ogg, AIFF) – using a variety of devices for sound (re)production (digital turntables, laptops, tablets). The emergence of bedroom producers and digital DJs has been met with ambivalent reactions from some within well-established traditionalist circles in EDM cultures; thus, while many have welcomed adopters of digital DJing and their practices warmly, others perceive them as threats to their status and to traditional EDM values and practices. These conflicts arise in passionate debates about the aesthetic qualities and symbolic meanings of analogue and digital music formats (vinyl versus CD) and instruments, as well as its associated notions about authenticity. I argue that the overemphasis on traditional values functions as a form of *distinction* (Bourdieu, 2000) within EDM cultures, thus reinforcing socio-cultural barriers. The chapter closes with an examination of musicians' *workflow*, suggesting it operates as a counter-narrative to the overemphasis on traditional subcultural values, and offers a brief analysis of the cycle-of-abundance in grassroots EDM production and its effects on musicians.

The publishing and distribution of music are key elements for the music industry and musicians alike, and online platforms provide grassroots musicians the opportunity to do both without relying on traditional institutional gatekeepers. Chapter 6 examines grassroots musicians' efforts to self-publish and circulate music online by analysing their use of SoundCloud – a leading UGC platform with roots in Berlin's EDM culture and an uncertain future in the online music market. SoundCloud facilitates publishing and circulation of music by musicians, thus bypassing record labels, radio stations, promotional networks (like DJ pools and club previews), and retail outlets. However, I demonstrate that the affordances of SoundCloud also restrict grassroots musicians' agency, autonomy, and control of uploaded content. Moreover, grassroots musicians also use SoundCloud (and other online platforms) for *promotion*, and the ways users circulate music in SoundCloud reflects the growing influence promotionalism has on professional musicians (Klein et al., 2016) and the music industry at large (Meier, 2017). Thus, the chapter argues that the practices and experiences of EDM musicians in SoundCloud are shaped by incentives for promotion, and that these are stronger for musicians on the professional side of the spectrum.

Chapter 6 starts with an analysis of the political economy of SoundCloud, and highlights the underlying conflict of interest played out among three parties – platform, users, and rights holders – engaged in on-going disputes about intellectual property, notions of fair-use, and financial gain. These conflicts not only limit the efficacy of musicians' efforts to circulate and promote music online, but also have potentially serious negative consequences for EDM musicians because their creative practices rely heavily on sampling and other contested derivative processes (such as remixes and recorded DJ sets). The chapter then analyses circulation of music by grassroots musicians from two angles: their online behaviour, and the characteristics of the content they upload. The analysis suggests that serious and aspiring professional musicians' use of SoundCloud is far more complex than those of casual musicians, and requires deeper understanding of the platform, alongside promotional strategies. Moreover, the analysis of content uploaded by musicians reveals they face significant dilemmas when using UGC platforms. I show the disparity of musicians' experiences by examining how content uploaded to SoundCloud reflects the problems of lack of control of one's content, how content protection strategies can have negative effects

for musicians and audiences, and the limitations of digital circulation for grassroots musicians within the global distribution of EDM production.

Finally, Chapter 7 presents the conclusions. Here I synthesise the findings presented in the empirical chapters and bring together the relevant issues for contemporary grassroots cultural production. It then shows how this thesis contributes to the fields of study it draws from, examines the limitations of the project, and ends with directions for future research.

Chapter 2
Analytical Frameworks

2.1 Introduction

The objective of this chapter is to outline the intellectual traditions and academic fields the thesis draws upon and aims to contribute to. In doing so, the chapter offers an overview of the frameworks used to investigate cultural production and cultural producers in the fields of media and communication, popular music studies, and research about EDM and its culture. Being interdisciplinary fields, the frameworks reviewed here also draw from research in neighbouring areas that have influenced our understanding of cultural production, including cultural labour, political economy, sociology of culture, and cultural studies. The chapter addresses the following questions: How have *cultural production* and *cultural producers* been studied by these traditions of thought? What are the *strengths* and *weaknesses* of each tradition for this thesis? And, how can they contribute to the study of *contemporary grassroots* cultural production? The overview of analytical frameworks also touches upon some of the most pressing issues grassroots musicians face, including issues about sociality, power, autonomy, self-realisation, concerns about social and cultural inequality and representation, and the potential for creative expression.

The overview of analytical frameworks is informed by recent changes in cultural production, as well as historical continuities. Addressing changes and continuities is important because contemporary cultural production is inserted in a context of optimistic claims about digital technology available for grassroots cultural producers, and the suggestion that these technologies have upended grassroots musical activities. In broad terms, optimistic claims celebrate the potential that developments in digital technologies provide for cultural producers, including: greater potential for emancipation and autonomy (access to the tools of production and circulation allows cultural producers to bypass intermediaries and gatekeepers); self-realisation and creative expression (through cultural production facilitated by digital technologies); and democratisation of production (through greater access to the tools of production and lower entry-level barriers for beginners). The analytical frameworks reviewed

here also provide the theoretical background for the examination of grassroots EDM musicians' experiences and practices developed in Chapters 4, 5, and 6. Thus, before examining popular music studies and the literature about EDM, I review frameworks of cultural production that intersect in media and communication studies.

2.2 Frameworks of Cultural Production: Intersections in Media and Communication Studies

For most of the twentieth century mainstream media and communication studies paid little attention to cultural production. Even *critical media studies* have focused more on texts and audiences than on the industry and production (Havens et al., 2009, p.234). Other related academic traditions interested in media and culture – including political economy, sociology of culture, and cultural studies – offer significant insights into cultural production, but, as shown later in this section, their contribution to our understanding of grassroots cultural production is limited. However, since the turn of the century, there has been a growing concern with issues about production in the media industries, and, more pertinently for this project, cultural producers. Taken together, this body of work argues for media and communication studies to turn "towards cultural production". The emphasis on cultural production, and, importantly, the experiences of cultural producers is more clearly seen in the recent scholarship in the fields of cultural labour, critical media industry, and production studies.

The emphasis on cultural production and cultural producers is best served by an analytical approach that focuses on what Havens et al. (2009) call a "midlevel" analysis. Their focus on midlevel is partly a critique of macro-level analysis – such as those employed in traditional fields of political economy and sociology of culture – as well as an attempt to address issues about power, agency, and the "complex interactions among cultural and economic forces" (Havens et al., 2009, p.237) that shapes cultural production.[8] Pertinent for this thesis is the fact that this midlevel

[8] Macro-level approaches investigate issues about power, justice, and the public good of media industries, but the analysis tends to emphasise large-scale, historical and structural

approach takes into account the experiences and practices of cultural producers, and understands these as part of the larger interplay between producers and institutions in cultural production. In other words, midlevel approaches focus on "particular organizations, agents, and practices *within* what have become vast media conglomerates operating at a global level" (Havens et al. 2009, p.236).

Drawing from the concerns raised by Havens' et al. midlevel approach, this thesis brings together micro and macro perspectives to the analysis of grassroots cultural production. The aim is to understand issues about the degrees of autonomy musicians enjoy as users of online platforms and digital technologies for music-making, as well as structural constraints set in place by the music industry and the platforms as they attempt to enforce their interests and curb behaviour deemed undesirable (section 6.2 deals with the conflicts of interest in detail). This analytical perspective benefits greatly from qualitative research methods and qualitative data because they provide valuable information about cultural producers' experiences and practices within the broader context in which it takes place (Chapter 3 explains the research design and methods used in the present project). The three most recent fields interested in cultural production (cultural labour, critical media industry studies, and production studies) share this midlevel approach to varying degrees, and each offers strengths and weaknesses when applied to the analysis of grassroots cultural production. Having pointed out the analytical approach that most benefits the analysis of grassroots musicians, we now turn our attention to the characteristics of each field that are most relevant to this thesis.

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issues in the media industry, thus largely neglecting the quotidian practices and experiences of those involved in cultural production – with the exception of leading figures such as heads of institutions or highly successful artists.

2.2.1 Cultural Labour

Since the turn of the millennium there has been a growing concern about *cultural work*, or as some would have it, *creative labour.* Pioneering work by scholars such as McRobbie (2002) and Ross (2003) were among the earliest responses to optimistic claims about greater autonomy, freedom, flexible hours, and the potential for creative expression and self-realisation available through work in what is described as the "new economy" by scholars who highlight cultural entrepreneurship (Leadbeater and Oakley, 1999) and the creative class (Florida, 2002). Cultural work is part of the larger service and knowledge economy (Gill and Pratt, 2008, p.2), and debates about its working conditions span a large number of intellectual traditions concerned with the "postmodernization of production and Autonomist-Marxist accounts of the rise of immaterial and informal labour, discussions of the rise of the cultural economy itself and the 'culturalisation' thesis, or works of cultural geography" (Conor, 2014, p.40). The problem of working conditions in cultural work, according to McRobbie (2002), is that the promise of freedom and autonomy in cultural work often hides high levels of self-exploitation, frustration, disillusionment, long hours and low pay. In an influential paper, Gill and Pratt (2008) summarise the main characteristics of cultural work as:

> a preponderance of temporary, intermittent and precarious jobs; long hours […] the collapse or erasure of the boundaries between work and play; poor pay; high levels of mobility; passionate attachment to the work and to the identity of creative labourer […] blend of bohemianism and entrepreneurialism; informal work environments and distinctive forms of sociality; and profound experiences of insecurity and anxiety about finding work, earning enough money and 'keeping up' in rapidly changing fields [… and a] preponderance of youthful, able-bodied people in these fields, marked [by] gender inequalities (p.14).

The list of characteristics draws from early qualitative and ethnographic research in the field (some of it with markedly feminist orientation), and provides clear evidence of the ethical, moral, and normative concerns present in cultural work scholarship – most notably in the critique of precarious working conditions, (self)exploitation by workers, degrees of autonomy, and inequalities running along the lines of gender, class, and ethnicity in the distribution of work and opportunities.

In recent years, the framework of cultural work has been adopted to investigate wider forms of work in the media industries, including videogames (Dyer-Witheford and Peuter, 2009; Bulut, 2015), television (Lee, 2011), screenwriting (Conor, 2014), and other creative sectors such as personal aesthetic work in salons (Ouellette, 2017). Significant contributions to the field have been made by Mark Banks (2007) writing about the politics of cultural work, and by Andrew Ross (2009) focusing on the history of work and how cultural labour fits in the context of "post-Fordist" work relations. Hesmondhalgh and Baker (2011) adopt the term *creative labour*, and in their investigation of work in three sectors of the media industry (music, television and magazine production) they argue for a "good work" framework designed to foster better working conditions and better cultural texts (p.36).

More recently, scholars in the field of cultural labour have taken a deeper interest in moral economy (Bennett et al., 2014; Banks, 2017), the notion of justice in cultural work (Toynbee, 2013; Banks, 2017), and structural inequalities (Oakley and O'Brien, 2016). The moral and ethical aspects of cultural work is significant to the analysis of grassroots cultural production because, as Banks explains,

> the commercial imperative has become more central to the cultural (or 'creative') industries, so *other* kinds of values or motivations to work have come to be regarded as less significant (in commercial and policy terms) and much less vital (in political or sociological terms) (2017, p.4, original emphasis).

Banks argues for a re-evaluation of cultural work along lines other than its commercial value. Moreover, Toynbee (2013) raises a similar and important issue about values associated with cultural work: given the precarious working conditions of cultural workers and that "much culture making goes on in 'proto-markets' at the margins of the cultural industries", he questions "how far cultural production should be paid work at all" (p.98). His critique highlights structural inequalities in cultural labour reinforced by copyright legislation that supports "the organization of the cultural market [and] its winner takes all profile" (Toynbee, 2013, p.98). By curtailing the mechanisms that support the concentration of profits in the hands of rights holders, Toynbee (2013, pp.98-99) strongly argues that:

> not only would more culture making take place in amateur or semi-professional contexts where there are fewer barriers to entry, but creative activity would be less strongly associated with the need for consecration through the market. Proto-markets (both virtual and geographically local ones) would tend to become 'quasi-markets', with a degree of low-level economic exchange as now, but less orientation towards the fully commodified cultural industries.

This emphasis on non-commercial *value* of culture and cultural work is fundamental in grassroots production – a realm where (low) financial rewards also have a symbolic role (acknowledgement). In this regard, while exploitation of labour and of the self are serious problems for professionals and aspiring professionals – including interns in the music industry (Frenette, 2013) and in various sectors of the creative industries (Corrigan, 2015) – these issues affect grassroots producers potentially less than limited autonomy, misuse (or misappropriation) of their work and creations, and the overemphasis on the material value of their work. Thus, the investigation of grassroots cultural production adds another layer to the discussion about the value(s) of cultural work.

Insights from cultural labour scholarship are useful to understand the experiences and practices of grassroots cultural producers because they offer a normative framework that addresses the positive and negative aspects of cultural production. Thus, Chapter 4 draws from creative labour research to analyse musicians' motivations to make music, their working and production conditions, and the interplay between the two. Moreover, the normative element in creative labour informs a critical assessment of optimistic discourses that overemphasise benefits associated with cultural production (creative expression, freedom, and autonomy), which in the case of grassroots EDM musicians have been fuelled further by celebratory accounts of the potential benefits offered by digital technologies. The cultural labour framework helps to understand why even though digital technologies have facilitated grassroots musical activities, it is still difficult to build a career within the world of EDM. Moreover, cultural labour studies provide theoretical tools to investigate issues about grassroots producers' power and agency, but these concerns are not limited to cultural labour.

2.2.2 Critical Media Industry and Production Studies

The field of *critical media industry studies* (CMIS) also investigates issues about power and agency, and does so by highlighting the importance of cultural production as it investigates the media industry. Drawing from early work by scholars from the Birmingham Centre for Contemporary Cultural Studies (most notably Raymond Williams and Stuart Hall), CMIS draws attention to "the need for empirical (not empiricist) research into the media industries with an eye towards the *struggle* over ideological hegemony in the production of popular culture", and "a concern with the material impact of the media industries within the cultural, social, and political spheres" (Havens, et al., 2009, p.249, original emphasis). Research in CMIS draws on qualitative data and methods (including ethnographic approaches) as well as media industry analysis to support the midlevel perspective mentioned previously; and this detailed view "of industrial practices and approach to the operations of power particular to critical media industry studies informs us of the complexity and contradiction of power relations" (Havens et al., 2009, p.239). Moreover, CMIS is also concerned with historical contexts and long-term developments (Perren, 2012, p.5), including the increasing degrees of "conglomeration, globalization and digitalization" (Perren, 2012, p.244) that the media industries have adopted.

Insights into cultural production from CMIS are useful for understanding grassroots cultural production in three aspects. First is the close attention paid to production processes within the changing media industries. Writing about the television industry, Lotz (2014) argues that "alterations in the production process […] including how studios finance them, and how audiences access them […] have forced the production process to evolve" (p.4), and these restructured "production practices inordinately affect the stories, images, and ideas that project into our homes" (p.4). Many of the changes Lotz refers to in cultural production for television (such as access to content anywhere, anytime, through various devices) have parallels in music, and helps

inform the analysis of grassroots EDM production.[9] Second, CMIS shares with political economy a materialist concern about the media industries, but unlike mainstream political economy, in CMIS these concerns are tied up with issues of power and meaning in cultural production. Perren (2012) explains that CMIS, "blends political economy's critical approach to the production and distribution of culture with cultural studies' concern with the power struggles that occur over the value of and meanings within specific texts" (p.5). The third useful aspect of CMIS to the study of grassroots cultural production is its attention to everyday practices regarding cultural production in media industries. In doing so, Havens et al. argue that CMIS is better suited than political economy to explain "the role of human agents" and "the quotidian practices and competing goals, which are not subjects to direct and regular oversight by corporate owners, and which define the experiences of those who work within the industry" (2009, p.236).

The last of the newer frameworks in the investigation of cultural production this thesis draws on is the nascent approach known as *production studies.* Its principles are laid out in two edited volumes, *Production Studies* (Mayer et al., 2009) and *Production Studies, the Sequel!* (Banks et al., 2015). With deep roots in cultural studies and social sciences, production studies use an interdisciplinary mixture of theories and concepts to investigate "how media producers make culture, and, in the process, make themselves into particular kinds of workers in modern, mediated societies [with attention on] this notion of production as culture" (Mayer et al., 2009, p.2). There are clear overlaps with cultural labour, particularly its concerns with, and the attention paid to, cultural workers, working conditions, inequalities, and research methods.

Alongside CMIS, production studies also take into account the roles politics, economy, geographic spaces, and technology play in the production of culture.

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[9] See Bull (2000; 2007) for an in-depth discussion of portable audio players and their social use. Sterne (2012) writes about the development of the MP3 file format within a "general history of compression" (p.5) and helps explain its popularity with audiences and adoption by the industry alike. Hesmondhalgh and Meier (2017) explore changes in the music industry business model and its impact on the consumption of music.

Paterson et al. (2016) argue that production studies grew in response to the "development of the media industries themselves" (p.3) and "recent transformations of the media landscape and production practice, exploring new research questions, sites and methodologies" (pp.3-4). Drawing on the work of scholars like Deuze and McRobbie, Paterson et al. (2016) highlight historical specificities and suggest that, today, research must deal with a "field transformed by digital technology as well as the proliferation and fragmentation of creative production roles […] marked shift in the speed of production [… and] the impact of social media and so-called 'citizen' originated news production" (p.7). As defined by Paterson et al. (2016), production studies share a strong normative position with scholars in creative labour, as evidenced by their adoption of the "good work" framework of Hesmondhalgh and Baker (2011), defined as work in the creative industries "involving autonomy, interest and involvement, sociality, self-esteem, self-realisation, work-life balance and security" (2013, p.36).

Critical media industries studies and production studies would benefit from research about grassroots cultural production. Such research would not only expand the analytical spectrum of cultural production, but also address some of the challenges facing the fields. Paterson et al. (2016) acknowledge that "production research related to digital technologies is still nascent" (p.7) and, in passing, highlight the potential gains production studies can draw from research about grassroots production. In their words, "further research is needed to explore the role of technologies in media production including, for example, the influence of grassroots production, participatory and collaborative production, the impact of social media, as well as the use of production software and hardware" (Paterson et al., 2016, p.7). The present project touches upon all of these suggestions for research. Having explained how this project draws largely from these three fields, our attention moves to how it draws on and overlaps with other intellectual traditions and fields, namely *sociology of culture*, *political economy*, and *cultural studies*, as they provide important insights into cultural production.

2.2.3 Sociology of Culture

Developments made during the 1970s within the field of *sociology of culture* provide valuable contributions to our understanding of cultural production. From a US

perspective, Peterson and Anand (2004) have focused "on how the symbolic elements of culture are shaped by the systems within which they are created, distributed, evaluated, taught, and preserved" (p.311), which in the 1970s, "challenged the then-dominant idea that culture and social structure mirror each other" (pp.311-312).[10] The work of Howard Becker is a good example of the strengths the American strand of cultural sociology offers to the study of cultural production. In the highly influential *Art Worlds*, Becker (2008) examines the collective efforts and processes in the making of art, and does so from an empirical investigation about the mundane and everyday aspects of artists' activities, such as their use of materials, social organisation, and the role of the artist as worker (2008, xi-xiii). Emphasising the collective effort required in the production of art, Becker explains that:

> art worlds consist of all the people whose activities are necessary to the production of the characteristic works which that world, and perhaps others as well, define as art. Members of art worlds coordinate the activities by which work is produced by referring to a body of conventional understandings embodied in common practice and in frequently used artifacts. The same people often cooperate repeatedly, even routinely, in similar ways to produce similar works, so that we can think of an art world as an established network of cooperative links among participants (2008, pp.35-36).

Becker's concept of 'art worlds' is useful for investigating grassroots producers' everyday activities, their collective force, and their roles in the larger sphere of cultural production, and the concepts of "EDM world" and "grassroots EDM world" used throughout the thesis are inspired from his work.

There are limitations to the sociology of culture approach as used by scholars such as Peterson and Anand. Critics have pointed out that it minimises specificities

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[10] While uncontroversial today, this development should not be understated, and its contribution is reinforced by similar conclusions drawn by 1970s UK-based scholars from the field of cultural studies.

(Alexander, 2003, p.80), and discards meanings associated with cultural texts (Eyerman and Ring, 1998, p.77). Moreover, Hesmondhalgh (2013a) argues that this American strand of sociology of culture largely ignores issues about the power of cultural workers (p.48). Therefore, to understand how sociology of culture has investigated issues of power and autonomy we have to consider *critical sociology of culture*.

During the 1970s, US-based critical sociologists focused largely on the production of news and news organisations (see Tuchman, 1978 and Gans, 1979) and suggested limited levels of workers' autonomy in news production. Similar conclusions by Gitlin (1983) suggest that television networks' internal organisational structures and commercial interests play a significant role in the production of conservative cultural texts. Meanwhile, in Europe, sociologist Pierre Bourdieu embraced a more systematic investigation of cultural production, and brought issues about the autonomy and power of cultural producers to the forefront. The vast scope of Bourdieu's work has been summarised elsewhere, but two elements in his theory of cultural production deserve a brief explanation – *field theory* and the concept of *capital*.[11] Bourdieu's *field of cultural production* is, in the words of Born (2010, p.177),

> a structured space of possible positions and trajectories, a social topology constituted through the competitive yet complementary position-taking of rival actors.

Bourdieu divides the field of cultural production into subfields, and two of these are particularly significant to the study of grassroots cultural production: *small*- and *large-scale* production.[12] These subfields are defined by the distribution of *capital* in

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[11] Schusterman's (1999) edited collection highlights Bourdieu's significance for philosophy. Webb et al. (2002) provide a condensed, thematically organised overview of Bourdieu's lifelong work. Harker et al. (2016) draw on Bourdieu's writings, as well as interviews and other sources, to offer a picture of his work and the context in which it was created.

[12] Bourdieu includes non-professional cultural producers in his model, but they are placed within the field of *power,* which, while related to that of cultural production, remains distinct from it.

mainly two forms: *economic* (or financial, pertaining to the resources available for use), and *symbolic* (pertaining to the level of prestige and social recognition). Thus, on one hand, small-scale production (such as avant-garde music) is characterised by low levels of economic capital and high levels of symbolic capital, providing producers with a high degree of autonomy in relation to commercial imperatives.[13] On the other hand large-scale cultural production is characterised by high levels of economic capital and low levels of symbolic capital, which restrains producers' autonomy.

As cultural producers in the casual-professional spectrum, grassroots EDM musicians operate in both fields of small- and large-scale production, and Bourdieu's framework helps to understand many of the dilemmas grassroots musicians face as they navigate in and between these fields. Thus, field theory accounts for the fluidity of producers' positions and their articulations within different fields; as evidenced by the commonplace practice in EDM of adopting different monikers for specific audiences, subgenres, and markets. Bourdieu's field theory resonates with the experiences of cultural producers, and it "offers the potential to make sense of a whole series of everyday actions and discourses in the making of symbolic goods" (Hesmondhalgh, 2006, p.217). This is particularly notable for independent cultural production (such as grassroots musicians), as Bourdieu's small-scale subfield helps us understand dilemmas producers in this field have in regards to other competing actors, and the art-commerce tension. However, in spite of its insights into cultural production, Bourdieu's field theory pays little attention to "sociological aesthetics and […] the specificity of the art object" (Born, 2010, p.177), and ignores the production of popular culture and the rise of the cultural industries in the twentieth century (Hesmondhalgh, 2006, p.219).

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[13] Born's (1995) work about IRCAM, the French institute for the composition and research of electronic music, reveals a classic example of small-scale avant-garde production.

2.2.4 Critical Political Economy

Initially developed in the 1960s, the field of *critical political economy* has been highly influential in studies of media and communication. Golding and Murdock (2005, p.61-6) summarise the approach taken by critical political economy in four key aspects: 1) it takes a comprehensive view of cultural production and analyses it within a whole, consisting of economy, society, politics, and culture; 2) it takes into account historical processes, and uses them to understand long-term changes in cultural production; 3) it is concerned with the relation between the private and public sectors in cultural production; and, 4) distancing itself from neoclassical cultural economics, political economy goes "beyond technical issues of efficiency to engage with basic moral questions of justice, equity and the public good" (Golding and Murdock, 2005, p.61).

The political economy approach is useful in the analysis of grassroots EDM production in three main aspects. The first is the concern with materialist elements, and the critique of culture "produced and consumed under capitalism as a fundamental issue in explaining inequalities of power and profit" (Hesmondhalgh, 2013a, p.43). Material conditions of producers are discussed in regards to their access to tools for music-making (section 5.3) and in the discussion of grassroots musicians' material constraints and their efforts to subsidise musical activities through resources gained from other activities (section 4.3). The second noteworthy aspect of political economy is its macro-level analysis of institutions associated with cultural production. While macro-level analysis may lack attention to detail about cultural texts and what happens within institutions and their workers, it is nonetheless relevant to grassroots cultural production because large-scale actors (such as media conglomerates and the technology industry) influence the practices and experiences of cultural producers, the texts they make, and their circulation. The analysis of the political economy of the online platform SoundCloud in Chapter 6, and the articulation of interests between online platforms, users, and the music industry (section 6.2), draws on political economy approaches. The third relevant aspect from political economy is its moral and normative views. Thus, questions about justice, equality, and the public role of media industries complement critical views about work from cultural labour, and informs the analysis of grassroots cultural producers' experiences and practices as part of the larger realm of cultural production in post-industrial societies.

Political economy approaches have a strong legacy in media and communications studies, and recently the framework has inspired new approaches to the investigation of digital technologies. In 'The Political Economy of Digital Technologies', Wittel (2017) acknowledges the strengths of political economy in research about mass media, but argues that the expansion of digital technologies to "the heart of all industrial sectors" (p.251) warrants a revision of political economy to address this wider phenomenon. Wittel argues for a new political economy of digital technologies (PEDT), which he suggests is better suited to investigate an environment of abundance of information, low cost of reproduction, wide circulation of media, and the resulting dilemmas about cultural production as the power of financial capitalism and the tech sector increases. In his outline of the emerging field of PEDT, Wittel revisits Marxist concepts that, he argues, were not fully explored in political economy – mainly labour and property. He suggests that increasing research from cultural labour has provided evidence that reinforces a Marxist reading of labour as,

> not merely an economic but a human activity. It is a universal category of human existence and it is independent of any specific economic or social form. Labour is what keeps us alive and what makes us develop (Wittel, 2017, p.258).

Moreover, he suggests that a new reading of the concept of labour and property (particularly intellectual property) based on Marx can help overcome the impasse in the debates about "free labour" (Terranova, 2000; Fuchs, 2014) and those who support "free culture" (Lessig, 2004, 2009; Benkler, 2007; Doctorow, 2008). The renewed efforts of PEDT might overcome some of the limitations raised by scholars from CMIS about political economy, mainly that it provides limited tools to analyse the tensions and dilemmas of cultural producers.

2.2.5 Cultural Studies

Beginning in the mid-1960s, scholars associated with the large and fragmented field known as *cultural studies* took popular culture as a serious object of intellectual inquiry, and raised important issues about culture and its relation with social power. Grassroots musicians have historically grappled with issues of representation, power, and autonomy in their efforts to produce and circulate cultural texts. Cultural studies

focus on everyday cultural manifestations, and criticise what they see as the dominant function of so-called 'high-art', thus highlighting its use by elites as a tool in the struggle for cultural representations (Hebdige, 1991; Hall, 1994).

The work of Hebdige in the late 1970s is a good example of the cultural studies approach, and has been highly influential in studies about youth and popular culture, particularly popular music. In *SubCulture: The Meaning of Style*, Hebdige (1991) argues that after World War II, working-class youth in Britain adopted a combination of music, clothing, dance, drug use, and other cultural manifestations as a challenge to the dominant ideology – thus, he argues, subcultures engage in *hegemonic* interplay with dominant culture (like high-art). However, the concept of subculture has significant limitations. Bennett (1999) argues it overemphasises "the role of mass-produced consumer items […] in the articulation of forms of working-class 'resistance'" (p.601). Moreover, the concept does not address the complex roles media and commerce play as a force that co-opts "subcultures into the hegemony, swallowing them up and effectively dismantling them" (Thornton, 1995, p.9).[14] In spite of criticism, the concept of subculture is still relevant to grassroots EDM producers because it has seeped from academic circles into popular conceptions about youth cultural movements; and in the process it has helped shape popular views about youth cultures as a form of rebellion against mainstream-hegemonic culture. Thus, "subcultural constructions still constitute seductive rhetorical fictions by which contemporary youth cultures are pressed into service as re-enactments of familiar myths of identity" (Gilbert and Pearson, 1999, p.22). Moreover, at the heart of subcultural theory is the idea that there are "structural 'resonances', or homologies, between the different elements making up a socio-cultural whole" (Middleton, 1990, p.9).

[14] In fact, Thornton (1995) rejects subcultural theory in her study of club cultures in favour of 'subcultural capital' – her adaptation of Bourdieu's 'cultural capital' to examine the socio-cultural structures of 1990s London dance club cultures.

As developed in cultural studies, the concept of homology is centred on the relation between social groups and their cultural manifestations. Gilbert and Pearson (1999) explain that, “the term identified what emergent cultural theorists saw as a symbolic equation in the experiences and values of particular youth groups and their acts of consumption” (p.23). However, strict homological views have been accused of being ‘totalising’ (Toynbee, 2000, p.114), and reductionist (Middleton, 1990).[15] In its narrowest sense, the concept of homology implies that people with similar backgrounds share cultural consumption practices, which in turn reinforce their experiences and values in a feedback loop. However, Finnegan (1989) adopts a more flexible version of homology to investigate grassroots music production, therefore avoiding its problems and opening up theoretical alternatives. Writing about Finnegan’s work, Frith (1996) highlights the implications of her work, and argues that,

> in relating music and society, we should reverse the usual sociological approach. Rather than looking for people’s material conditions in their aesthetic and hedonistic activity, we should look at how their particular love and use of music inform their social situation (Frith, 1996, p.125).

The suggestion to reverse the sociological approach dismantles many of the problems of homology as laid out originally by Hebdige (and scholars in the Centre for Contemporary Cultural Studies), and opens up possibilities to investigate the relation between music and social identities in detail. Finnegan’s “reverse-homology” places musicians’ musical practices at the centre of the analysis, and in the process expands from the relationship between class and culture to incorporate how other significant social aspects influence musical activity. As a result, reverse-homology has useful implications for the study of EDM. The explanatory potential is reflected in a passage

[15] Middleton accuses homological analysis of reducing the subtleties and complexities in three ways: "‘upwards’, into an idealist cultural spirit, ‘downwards’, into economism, sociologism or technologism, or by ‘circumnavigation’, in a functionalist holism" (Middleton, 1990, p.9-10).

from Collin's (2009) foreword to the second edition of the acclaimed *Altered State.* He describes ecstasy culture and early acid house as a:

> culture with options in place of rules; a series of possibilities which people could use to define their own identities, possibilities which could be adapted to each individual's social background and belief system […] it was shaped by time, place, and a very specific economic and social conditions: the late eighties in urban years, the end of the Thatcher years, when the psychic map of the country was redrawn (2009, vii-viii).

It is in this sense that the concept of reverse-homology informs the identification of core values in EDM cultures – the central discussion in section 2.4. At its best, cultural studies reveals fundamental questions about representation and authority in culture, and in doing so, it raises issues about subjectivity, identity, discourse, and pleasure in the relationship between culture and society – important aspects in understanding the experiences and practices of grassroots musicians as cultural producers.

Having reviewed the analytical frameworks for cultural production in media and communication and intersecting fields, we now turn our attention to popular music studies and the advantages it offers to the investigation of grassroots cultural production.

2.3 Popular Music Studies

Since the 1960s, writing about popular music has mushroomed in the popular press (through music magazines, fanzines, biographies of artists and bands) as well as in academic scholarship. This section focuses on academic traditions invested in understanding the worlds of popular music – grouped under the name *popular music studies* – and how they inform the investigation of grassroots cultural production. Popular accounts about music, specifically EDM, follow in section 2.4. The history

of the field of popular music studies has been well-covered elsewhere, and a detailed overview is outside the scope of the present work.[16]

Scholars in early popular music studies, such as Frith (1978; 1983), Middleton (1990), Jones (1992) and Negus (1992; 1999), followed the call from cultural studies and took popular music seriously as a way of understanding complex issues about social and economic power, identity, and representation.[17] Since then, the field has developed deeply interdisciplinary, pluralist, and international characteristics (Hesmondhalgh and Negus, 2002, p.3). Significant contributions have been made from other fields, and this thesis draws from a number of them. Coming from psychology, Juslin and Sloboda (2001) and DeNora (2000) explore the affective and cognitive connections associated with music listening. Media industry studies (Wikström, 2009) uses the music industry as a case study to understand the impact of digitalisation in the media industries. And the sociology and politics of work investigates the working conditions and experiences of musicians of popular music as a "set of case studies for a critical political economy of employment in postindustrial capitalism" (Stahl, 2013, p.226). In spite of great diversity, popular music studies are bound by common characteristics and objectives. Hesmondhalgh and Negus (2002) observe that:

> a distinctive feature of popular music studies has been the willingness of participants to address the relationships between musical meaning, social power and cultural value. What is more, popular music studies have developed distinctively ways of treating these issues, addressing popular music as a multitextual cultural phenomenon […] The field has built up a

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[16] See: Middleton (1990) for an early mapping of the main concerns and problems facing popular music studies as it developed into a recognisable yet still multi-faceted field; and Hesmondhalgh and Negus (2002) for an assessment of the field in the early twenty-first century.

[17] While the approach and conclusions of these early popular music scholars provided important insights into cultural production (see Negus (1999) for an in-depth account of the complex use of genres by corporate culture in the music industry), they remained largely ignored by two main strands of media industry studies, namely political economy and mainstream sociology.

> cumulative analysis of popular music culture in its many different textual and technological forms, by analysing recordings, videos, television, film, radio, the internet and other media to show how music is mediated to its public, and how these different forms can produce considerable complexity and ambivalence in meaning (p.7).

Their summary reveals Middleton's early call for popular music studies to focus on "a *cultural theory of music*, that is, a study which focuses on music but refuses to isolate it" (1990, vi, original emphasis).

Thus, with regards to cultural production, popular music studies offers a holistic view of production, distribution, and consumption, and three themes are useful in the analysis of grassroots musicians' practices and experiences: 1) the significance and roles played by *grassroots* musicians within the larger world of music-making (Finnegan, 1989; Cohen, 1991) including EDM DJs (McGregor and Gibson, 2009; Reitsamer, 2011), issues about creativity in making popular music (Toynbee, 2000) and the adoption of social media platforms by EDM musicians (Mjos, 2013); 2) the deep relationship between *popular music, musicians, and technologies,* such as studio technology and recording devices (Jones, 1992), personal computers (Prior, 2008, 2010), networked studios (Théberge, 2004, 2017), media formats and club cultures (Straw, 1991; Thornton, 1995; Bartmanski and Woodward, 2015), and devices for music-making (such as audio synthesis) and consumerism (Théberge, 1997, 2001); and 3) the multifaceted concept of *genre*, as a 'production culture' (Negus, 1999, p.3), and more importantly, as a set of *social processes* (Gilbert and Pearson, 1999; Toynbee, 2000; Lena, 2012).

Section 1.3 briefly introduced the concepts of grassroots musicians and the amateur-professional spectrum as an analytical tool, but it is worth going into more detail because they are not only a key concept in the thesis, but also a useful framework to investigate grassroots cultural production at large.

2.3.1 Grassroots Musicians

Studies about popular music have long grappled, if only marginally, with the importance of grassroots musical production, and the very notion of what constitutes grassroots musicianship. While popular music studies is largely concerned with

audiences and cultural consumption (as mentioned in the discussion of subcultures in the previous section), work by Bennett (1980), Finnegan (1989), and Cohen (1991) greatly extended our understanding of grassroots cultural production.[18] In her influential book *The Hidden Musicians* (1989), Finnegan highlights the importance of grassroots musical production and asks:

> why should we assume that music-making is the monopoly of full-time specialists or the prime responsibility of state-supported institutions like the national orchestras or opera houses? Once we ask the question and start looking it becomes clear that it is also the pursuit of thousands upon thousands of grass-roots musicians, the not very expert as well as the expert, still learning as well as accomplished, quarrelling as well as harmonious – a whole cross-section, in other words, of ordinary people engaged in music in the course of their lives (p.9).

Echoing Finnegan, Sara Cohen (1991) highlights the outstanding "social, cultural, and artistic impact that rock music has made throughout the world" (p.5), and during her investigation of rock bands aspiring for success, she argues that:

> what is particularly lacking in the [popular music] literature is ethnographic data and microsociological detail. Two other important features have been omitted: the grass roots of the industry — the countless, as yet unknown bands struggling for success at a local level — and the actual process of music-making by rock bands (p.6).

Cohen's (1991) research about 'under-the-radar' rock bands in Liverpool, and Finnegan's (1989) investigation of amateur local musicians in Milton Keynes suggest that, contrary to popular (mis)conceptions about amateur musicianship, there is significant overlap between amateur and professional musical activity on the

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[18] Howard Becker's *Outsiders* (1963) is a remarkable example of pioneering sociological research focusing on the practices and experiences of jazz musicians and dance cultures, and includes a grassroots perspective.

grassroots level (Finnegan, 1989, pp.12-18). Finnegan (1989) illustrates her claim with examples from her fieldwork, including:

> the musician who earned only small fees but played on in the hope of more and better bookings or just for the love of music (p.12)

And:

> the classically trained vocalist who decided not to pursue her full-time career after the birth of her daughter but picked up the odd local engagement for a moderate fee, often accompanied by a local guitar teacher: professional or amateur? Again, local bands sometimes contained some players in full-time (non-musical) jobs and others whose only regular occupation was their music; yet in giving performances, practising, sharing out the fees and identification with the group, the members were treated exactly alike (except for the inconvenience that those in jobs had to plead illness or take time off work if they travelled to distant bookings) (p.13).

Thus, when distinguishing between amateurs and professionals on a local level, Finnegan (1989) suggests that "taking music as 'the main source of livelihood' does not always provide as clear a dividing line" (p.13); neither does membership to the Musician's Union, which "was usually of only minor importance" (p.14). The connections between amateur and professional musicians run deep and are reinforced as "the budding professional musician regularly gets started through local non-professional opportunities" (p.17), and "professional music feeds directly on local amateur activities and would be impossible to sustain without them" (p.17). Even Stebbins' (1979) definition of professional musicians includes characteristics that are found across grassroots musicians (clearly in varying degrees), including the creation of "unstandardized products", "wide knowledge of a specialized technique", the

mastering of a "generalized cultural tradition", and the emphasis on "standards and services rather than material rewards" (Stebbins, 1979, p.24).[19]

Given the fluid boundaries between amateur and professional musicians' activities, how can we analyse the differences between their experiences and practices? In a clever analytical move, Finnegan suggests a *continuum* defined by amateur and professional musicianship on each end with:

> many different possible variations. Indeed, even the same people could be placed at different points along this line in different contexts or different stages of their lives. Some *were* clearly at one or other end of the continuum, but the grey area in the middle in practice made up a large proportion – perhaps the majority – of local musicians (1989, p.14 original emphasis).

The typology adopted in this project to refer to individual musicians draws from the work of Finnegan (1989) and Stebbins (1979). In this sense, while grassroots musicians can be found throughout the continuum, they tend to concentrate mostly on what Finnegan defines as the 'amateur' side (1989, p.14) and the grey area in-between amateur and professional musical activity. However, as discussed in section 1.3, I adopted the terms "casual", "serious", and "aspiring" to qualify musicians' positions across the grey area of the spectrum – casual musicians share more characteristics with amateurs, serious musicians fall somewhere closer to the middle and lean towards the professional side alongside aspiring professionals, who, by definition, share more commonalities with their professional counterparts. I also use the term "veteran" musician to refer to those who, in spite of changes in their lives, remain active cultural producers in the long-term. It also acknowledges those "who in the past had lived from their music […] or had been 'professionally trained'" (Finnegan, 1989, p.12) and remain active in the world of grassroots EDM.

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[19] Other characteristics are rare in grassroots circles, including the use of "institutionalized means of validating adequacy of training and competence of trained individuals" (Stebbins, 1979, p.24).

By the mid-1990s, a new wave of popular music research followed up on Cohen's call for more ethnographic and micro-social research in popular music (Cohen, 1991, p.6), and in doing so, turned their attention towards grassroots musicians. From a largely optimistic perspective, DeNora (1999, 2000) highlights the intrinsic values and pleasures of music, primarily via listening, but also arguably when engaged in music-making.[20] The benefits, she argues, result from music listening as a way to shape emotions and influence mood, and she frames these effects as a "technology of the self". Thus, music "provides a medium for forms of social agency" (DeNora, 1999, p.31). Focusing on the benefits of music for the individual and society, Turino (2008) advocates small-scale grassroots-driven participatory musical performance as a way to foster social bonding, integration with the self, imagining alternative realities (Turino, 2008, pp.227-228) and enjoyment of the state of mind Csikszentmihalyi (1991) defined as *flow*. Micro-social research in popular music studies also includes studies about the consumption of EDM. From a critical angle, Thornton (1995) investigated the consumption of EDM by fans and insiders in club cultures in London and, adapting Bourdieu's concept of cultural capital, she portrays a world in which the accumulation of subcultural capital is instrumental in establishing hierarchies along the lines of "[1] the authentic versus the phoney, [2] the 'hip' versus the 'mainstream', and [3] the 'underground' versus 'the media'" (pp.3-4). Thus, she explains, "club crowds generally congregate on the basis of their shared taste in music, their consumption of common media and, most importantly, their preference for people with similar tastes to themselves" (1995, p.3).

A set of balanced critical research about popular music-making practices also took interest in grassroots musicians. Coming from sociology and drawing from cultural studies scholarship, Toynbee's *Making Popular Music* (2000) dives straight into the practices of musicians of popular music in his investigation of creativity and its relationship with institutions, technology, and the social processes that shape genres.

[20] DeNora's approach to the investigation of musical meaning draws from the work of Becker (2008). She focuses on everyday experiences and highlights agency, interaction, and listeners' use of music as they create their "music worlds".

Writing about EDM, Toynbee argues that "there *have* been significant shifts, both in the nature of the music and in the way it is made" (2000, p.160, original emphasis), and his study of dance music portrays developments in the genre as emblematic of these changes. Among the most significant novelties associated with dance music, Toynbee lists, "hyper-innovation […] associated with a much larger and more volatile field" (2000, p.160), distributed small-scale production, and a "democratic tendency in production and performance […] driven by greatly increased feedback between music makers and audience" (2000, p.161). Overall though, these changes amount to "an *extension of social authorship* rather than a substantially new form of music-making" (p.161, original emphasis), and technological developments available for grassroots musicians played an important (yet problematically overemphasised) role in extending music production at the grassroots level.

Drawing on debates about cultural labour, popular music studies have also contributed to understanding issues about work that are useful in the analysis of grassroots EDM musicians. Baym and Burnett (2009) examine the tension between the "giant leap forward for fans, who can now serve new roles without industry support" and the "potentially exploitative transformations of media industries in which unpaid volunteers do the labour that professionals are paid to do" (2009, p.433). In his compelling book *Unfree Masters*, Matt Stahl (2013) investigates the dual role of music stars as both employees and employers, and argues that,

> the contradictions and paradoxes discovered herein are not unique to the music or entertainment industry: they illuminate much broader problems in American society that derive from core propositions of liberalism, such as the paramount value of the freedom of contract (p.3).

While professional musicians are outside the scope of this project, Stahl's insights are important to contextualise the limitations of formal music economies and the underlying logic of entrepreneurship that permeates grassroots EDM production. Highlighting the problems of cultural entrepreneurship for fans and musicians, Morris (2013) argues that,

> what is important to recognize is a burgeoning investment in models of cultural entrepreneurship that seek to combine new technologies for

> producing, distributing, and connecting with the passionate labour and creativity of both artists and fans (p.14).

His analysis encompasses the spectrum of casual-professional musicians' activities, insofar as they adopt the logic of "cultural entrepreneurship" in their musical activities. Moreover, writing about musical entrepreneurship and exploitation, Morris (2013) suggests that the concept of "exploitation" does not fully address the complexities of musical activity, and argues that this kind of 'working-relationship' between artists and fans "fosters a re-evaluation of the relationship artists and users have with cultural commodities: people are not paying solely for the objects; they are also paying for the meanings they associate with the object" (p.15). His observations about the value associated with the meanings of objects can also be applied to musicians' perspectives about musical activities, a point highlighted by Toynbee (2013) in his critique of the overemphasis on financial value associated with cultural production. Toynbee (2013) suggests a revisionist view "to identify the thorough-going contradictions that extend from the larger domain of work in general into the labour of making cultural goods", and in doing so reclaims the value of cultural production beyond "the means by which the commodity status of cultural good is enforced" (p.87).

While grassroots musicians have received marginal attention in the literature about cultural production and music studies, the growth of digital technologies for music-making and circulation has attracted renewed attention (much of it using the subcultural framework). Bloustien (2008) writes about grassroots entrepreneurship in hip-hop DJing music practices. Investigating indie-rock musicians in Sweden, Baym and Burnett (2009) expertly address the complexities musicians face as both amateurs and experts. Reitsamer (2011) investigates cultural labour and entrepreneurship in techno and drum and bass DJs in Vienna. Skeltchy (2017) delves into notions of underground genre as "anti-genre" in "unsigned" musicians in the Bay Area. Miller (2016) writes about the heavy metal "semi-professional" world. The analysis of grassroots musical activity allows us to deepen our understanding of the complexities of cultural production and cultural work on a level that is often overlooked in studies about cultural production, and in the case of EDM, it is deeply interconnected with advances in technology.

2.3.2 Music and Technology

Throughout history, popular music has always relied on technologies for its production and mediation, with digital and electronic technologies taking the spotlight since the 1990s. In fact, Théberge asserts that "without electronic technology, popular music in the twenty-first century is unthinkable" (2001, p.3). Because of the long-term historical relationship between popular music and technology, Gilbert and Pearson (1999) warn against overemphasising the role of electronic technological *devices* (such as audio recorders, effects units, and microprocessors) in late twentieth century music-making (p.111). Overemphasising the significance of electronic devices in the ways music is made would be misleading, not only because of its long history in the making of popular music, but, more importantly, because technology has become deeply embedded in musicians' *practices* (Jones, 1992; Gilbert and Pearson, 1999; Théberge, 1997, 2001). This view reinforces claims that technology is deeply embedded in, and shaped by, social and economic forces, and analysing technology separately from society (and individuals) runs the risk of incurring reductionist and simplistic explanations (Mackenzie and Wajcman, 1999, p.4). Moreover, Théberge (2001) stresses that technology should also be understood as "a set of practices" and "an element in the discourses that we use in sharing and evaluating our experiences" (2001, p.3). Drawing from Blacking (1977), Théberge argues that:

> the ensemble of electronic devices that are used to make, distribute and experience contemporary music are not simply a technical 'means' through which we experience music. Technology has become a 'mode' of music production and consumption: that is, technology has become a precondition for music-making, an important element in the definition of musical sound and style, and a catalyst for musical change (2001, p.3).

The increased popularity in home recording technology in the mid-1980s (namely multi-track recording and computer-based home studios) opened up more pathways for new musicians and grassroots musical production (Jones, 1992; Prior, 2008). Thus, the resulting popularisation of music-making via more affordable audio recording and manipulation devices changed the very language used when making music as well as the mental processes employed by musicians when doing so (Durant, 1990, p.187; Jones, 1992, p.10). Jones rightly suggests that:

> the representation of music is changing through technology – from standard music notation to visual representations by digital means. Therefore, technological language becomes increasingly important for the creation of music (1992, pp.10-11).

Alongside the musical skills needed to play instruments and write music, Jones explains that "one now often needs knowledge of a technological nature (such as the language associated with electronic signal generation) as well" (pp.10-11). The processes of music-making Jones refers to can be understood as a form of technological enculturation, which, when at its fullest, renders technology "invisible" to users, thus becoming deeply embedded in their practices (Winston, 1998; MacKenzie and Wajcman, 1999). In regards to EDM, Gilbert and Pearson (1999) conclude that "the enculturation of a whole range of technologies — from vinyl discs to digital sequencers to MDMA, LSD and amphetamines — has been one of the key processes according to which contemporary dance culture has been constituted" (p.140).

The enculturation of technology in EDM can be framed as part of a central debate in popular music studies, namely how technology affects notions of authenticity and artificiality in "the aesthetic of production and reception in pop" (Toynbee, 2000, p.68). Such debates rage strongly at the grassroots level. At the heart of the debate is the assumption that the development of audio recording technology has radically transformed the methods popular musicians use to make music, as well as audiences' perceptions of musical experiences. Toynbee (2000) suggests that, "the idea of a binary opposition between live and recorded music, one related to contested notions of authenticity and artifice […] obscures our understanding of the meaning of music technologies" (p.69). His argument is compelling in the case of EDM, and Thornton (1995) has demonstrated how notions of authenticity in club cultures are associated not with live musical performances (as is the case of genres such as folk and rock), but with 12-inch vinyl records, which in EDM cultures were invested with an aura of authenticity (p.27). She strongly argues that in the case of EDM, "recording technologies did not, therefore, corrode or demystify 'aura' as much as disperse and re-locate it" (Thornton, 1995, p.27).

The enculturation of the 12-inch dance music record in club culture crystalized as these objects became powerful symbols of social and cultural authenticity. Two decades after Thornton's account, vinyl records retain symbolic value within some of the more traditional and well-established EDM cultures. Writing about house and techno cultures in Berlin, Bartmanski and Woodward (2015) argue that:

> the visible establishment of authenticity in these independent and underground cultural milieus facilitates the maintenance of vinyl's symbolic power within particular music cultures. Vinyl's unwillingness to disappear is based upon its continued relevance to contemporary independent scenes. Its capacity to work as a legitimate signifier of music heritage in turn energizes its wider circulation. Although challenged by the undeniable convenience of the digital medium, our study has shown that vinyl still retains symbolic and sonic currency as a signifier of highly credible and perhaps most authentic involvement in the music industry, on the sides of producers, music makers and listeners (p.173).

Vinyl remains a powerful symbol in these traditional EDM cultures, and for them the value of the format never faded, even under the commercial imperatives of the major record labels and its shift towards digital formats from the late 1980s onwards (namely CDs). Thus, the consumption of vinyl in EDM cultures cannot be fully explained by notions such as "purchaser as citizen", which music journalist Harvey (2017) uses to describe the recent 'revival' of vinyl records through his analysis of the Record Store Day phenomenon. Moreover, insofar as the 'resurgence' of vinyl is concerned, its permanence within dance cultures has arguably contributed to the format's renewed popularity. As Bartmanski and Woodward (2017) argue:

> in the face of massive systemic top-down changes, it is the unflinching commitment of the representatives of these dedicated independent carrier groups that establishes [vinyl records] as credible in our eyes and effective in their respective domains (p.4).

Notions of authenticity attributed to vinyl records in EDM cultures informs the discussion about the values of media formats for grassroots musicians' practices in making and playing music (investigated in section 5.3) and its circulation (examined in Chapter 6).

The degree to which technological devices have been enculturated in EDM is investigated by Toynbee (2000) through his concept of the *technosphere* (pp.69-70). The concept of technosphere rejects the binary opposition between how musicians reacted to the "progressive mediation of music-making in the twentieth century" (through recording devices and mass media formats), and recognises "the idea of a performative gap or dislocation, but also a belief on the part of the musicians that this might be bridged" (2000, p.69). Such a concept can explain not only cultural meanings associated with devices and objects, but also the *skills* employed by grassroots musicians when using them, such as the physical manipulation of records when DJing (addressed in section 5.3.4). Within the spectrum of the technosphere, Toynbee argues that EDM stands at the far side of technological integration, as the aesthetics of production (and I would add, performance) of EDM pushes the boundaries of artificiality in music. Toynbee explains that enculturation of technology in music making constructs:

> sonic environment, a virtual dimensionality which never existed 'originally'. In historical terms, this is the last strategy to develop. It can be first discerned at the beginning of the 1950s with the advent of techniques such as tape echo. It reaches an advanced stage with Phil Spector's Wall of Sound in the early 1960s. Today it is the dominant approach. All popular music now takes on the aspect of a virtual sonic environment – although it can perhaps be heard to most extravagant effect in dance music (2000, p.70).

Thus, EDM embraces technology as the genre thrives in creating artificial sounds, synthesised with machines and software, and manipulated to an extent that renders them unrecognisable when compared to aural experiences of the natural world. The relationships EDM musicians have developed with various forms of technologies used to make, play, and reproduce music have become important defining aspects of the genre, and as such, operate as a set of norms and conventions that shape its very existence of the genre. Thus, the next subsection investigates the concept of genre, highlights its social and cultural dimensions, and in doing so examines significant implications for our understanding of the social processes of grassroots cultural production.

2.3.3 Genre: Norms, Conventions, and Social Processes

At the heart of the concept of genre is the notion that they are defined by, and classified according to, a set of norms and conventions. Historically, genre studies have investigated the norms and conventions by focusing on cultural texts (Duff, 2014), and genres have been used to shape audiences' expectations and gratifications (Berger, 1992), to organise the sales, making, and listening of popular music (Frith, 1996, p.75), and as a strategy to minimise the risks of financial losses by the cultural industries (Hesmondhalgh, 2013a, p.32), a sector renowned for high levels of commercial risk and uncertainty in returns. Moreover, the norms and conventions of popular music genres are defined "*within* a commercial/cultural process" (Frith, 1996, p.89, original emphasis) and take into account both cultural and commercial imperatives.

The notion of genres as a set of norms and conventions associated with cultural texts is deeply embedded in popular music, but the overemphasis on cultural texts has significant limitations. From a pragmatic perspective, Toynbee (2000) notes that "no text will have all the traits of the genre to which it belongs" (p.103), and while at first it would seem possible to refine the common traits of a genre by increasing the number of core-defining texts, Frith (1996) points out that this text-centric approach is limited because it largely overlooks a deeper issue: genres are a form of *labelling*, and as such they are "at the heart of pop *value judgements*" (p.75, emphasis added). The key to Frith's argument is the idea that, more than its commercial and organisational use by the music industries, labelling is based on deeper values and meanings which are socially constructed and predate the creation of cultural texts (1996, p.94). In his words:

> the genre labeling process is better understood as something collusive [rather] than as something invented individually, as the result of a loose *agreement* among musicians and fans, writers and disc jockeys (Frith, 1996, p.88, original emphasis).

Thus, Frith suggests that genres are fluid and are the result of a "deliberate process of testing and bending" which are "not determined by the form of style of a text itself but by the audience's perception of its style and meaning" (1996, pp.93-94). Frith's remarks about the communal efforts – between musicians themselves as well as with

audiences – in shaping musical genre is also present in Becker's (2008) *Art Worlds* (discussed in section 2.2.3). The key element in both Frith's and Becker's arguments is the focus on *social processes* in the making of art worlds, music genres, and cultural texts.

Deemphasising cultural texts in the shaping of genre allows a deeper understanding of how cultural producers create within the norms and conventions of each genre, or subgenre for that matter. Toynbee (2000) rightly argues that genre is important in popular music because it is closely related to cultural texts as well as to the social processes musicians are involved. From the perspective of producers of popular culture, the norms and conventions of genre are useful because "musicians more or less consciously consider their music-making in such terms", and as such, genre acts "as a filter to allow some possibles in the field to be heard by the music maker while cutting out others" (Toynbee, 2000, p.103). Scholarship about remix and sampling (in hip-hop and EDM) has explored how these creative possibilities are not only aesthetic choices bound up by the norms and conventions of the genre, but also an "ever-changing set of ideas up for debate in written and oral form", operating as a "cultural glue" (Navas, 2012, pp.3-4).

Therefore, the concept of genre is more than a set of sounds, musical styles, or aesthetic conventions. It is more than where media industries (including music, film, publishing) meet audience tastes. Genre is also defined by a set of values, beliefs, and ideals *shared* by a group of people with significant implications for the creation, circulation, and consumption of cultural texts. Moreover, genres are relevant to grassroots EDM musicians because, as Hesmondhalgh (1998) argues, the notion of genre in British independent dance culture resonates more strongly in small independent music scenes than "at the higher end of the [music] industry, in the world of big promotional budgets, [where] genre tends to become less important than authorship" (p.238). Therefore, defining genres as a set of shared values must take into account its state of flux, and, as they change, they follow Kahn-Harris' (2006, p.12) suggestion that genres mutate and are not static.

The norms and conventions of each genre are socially constructed, and are shaped by complex and often contradicting forces. In what is arguably one of the most systematic recent investigations of genre in music studies, Jennifer Lena (2012) argues that

genres are “systems of orientation, expectations, and conventions that bind together industry, performers, critics, and fans in making what they identify as a distinctive sort of music” (2012, p.6). Lena’s definition draws from the work of Neale (1980), and, following Becker’s (2008) concept of art worlds, she also emphasises the “social arrangements that link participants who believe themselves to be involved in a collective project” (Lena, 2012, p.6). The collective aspect of genre is also highlighted by Toynbee (2000), who argues that in the case of musical genres, social ties among musicians are reinforced by their musical practices, because, unlike large-scale cultural production (such as TV or cinema), music can be owned and produced by communities (p.110), with significant implications for grassroots musicians and the social groups they are most closely related to. Again, studies about sampling and remixing illustrate the collective element of genre through practices of co-production.

In sample-based musics such as hip-hop and EDM, sampling and remixing practices have relocated ideals of individual authorship in favour of collective use. In full and in parts, texts are (re)appropriated and (re)worked by producers into new material via sampling and remixing (in many cases unwittingly by the original author). The operation is facilitated by technologies for audio manipulation (most notably dedicated samplers and computer software), and in the process cultural meanings are (re)signified according to the new contexts in which music is experienced. Discourses about remix in music go beyond “the basic understanding of recombining material to create something different” (Navas, 2012, p.3) and intertwine with broader contemporary media production in “participatory culture” (Jenkins, 2006a, 2006b, 2013; Lessig, 2004, 2009). Remixing music, and remix culture at large, questions notions of individual authorship (Jenkins, 2006a; Navas, 2012, pp.129-36), blurs boundaries between producers and consumers, and as Lessig (2009) points out, is constrained by the application of copyright and intellectual property law as a way to protect rights holders interests and intellectual property. Investigating the norms and conventions of the social processes in the production of grassroots EDM also allows us to understand the internal logics of cultural production (such as values attributed EDM musicians to sampling and use of intellectual property), as well as the role of music production as a space where values are shared and disputed. Thus, any analysis of genre, including its norms and conventions:

> must be, by aesthetic necessity, narrative analysis. It must refer to an implied community, to an implied romance, to an implied plot. In examining how the elements of popular music work (the sound, the lyric, the voice, the beat) we always have to take account of their genre coding: popular music pleasures can only be understood as genre pleasures; and genre pleasures can only be understood as socially structured (Frith, 1996, pp.90-91).

This section has provided an overview of popular music studies and how it helps to understand contemporary grassroots cultural production. Section 2.3.1 refined the concept of grassroots musicians using the framework of the amateur-professional spectrum, highlighted how popular music scholars have examined the role of grassroots musical activity, and closed with a discussion about technological changes in EDM and contributions to debates about labour. Section 2.3.2 focused on music and technology, showing that musicians have historically relied on technology in their musical practices, and pointed out the high degree of enculturation of technology in EDM. Section 2.3.3 addressed the concept of genre as a set of norms and conventions, and stressed that among its many uses, genre is also a set of social processes with important implications for grassroots musicians on creative, social, and cultural levels. The next section synthesises the shared values of EDM, and in doing so, it follows the best research in cultural labour, media industry and cultural production (addressed in section 2.2) which takes into account producers' values as important elements in shaping the production of culture.

2.4 Shared Values of Electronic Dance Musicians

The discussion of genre showed that the norms and conventions that characterise them also include social and cultural elements. In this section I will discuss some of the fundamental social and cultural aspects of EDM through an examination of the values shared by musicians of the genre. The objective is to highlight the most significant values, and provide an overview that will be used as a baseline to contextualise musicians' experiences and practices as contemporary cultural producers. The values associated with EDM are identified from observations of musicians in action, the larger worlds of EDM, portrayals in the popular press, and insights from academic scholarship about the genre. Values are divided into three groups. The first concerns community and sociality. The second addresses musicians' views and their uses of

technologies for music-making. The third takes into account the DIY ethos and issues about power and autonomy facing grassroots EDM musicians.

Before we move on to an examination of the values of EDM, it is important to briefly consider their mythical function, as well as their meanings with regards to early EDM cultures. The focus on myths is useful because they connect the present values of EDM musicians with narratives about the past, and highlights the importance of contemporary debates about sociality, use of technology, and the DIY ethos of grassroots EDM musicians.

2.4.1 Myths and Meanings in EDM

It has been argued that while gathering cultural momentum in its early stages local dance music cultures foster *utopian* aspirations in those who take part (Hanson, 2014). The utopianism associated with early EDM cultures (such as the embrace of technology, discussed in section 1.3) is part of a larger set of foundational elements that later crystallised with *mythical* force. In the case of contemporary EDM, it is the early electronic dance cultures of 1970s disco in New York, 1980s Chicago house and Detroit techno that provide its mythical foundations. In *The Digital Sublime,* Mosco (2005) examines the relationship between myth, power, and technology, and argues that myths are appealing because they offer "stories that help people deal with contradictions in social life that can never be fully resolved", such as "the desire to retain our individuality and yet participate fully in a collective community", and to fulfil "our wish to retain the comfort that day-to-day routine provides, even as we seek to transcend its banality" (2005, p.28). Drawing from Emmet and MacIntyre's (1970) work about the function of myths, Mosco (2005) strongly suggests that:

> myths are neither true nor false, but living or dead. A myth is alive if it continues to give meaning to human life, if it continues to represent some important part of the collective mentality of a given age, and if it continues to render socially and intellectually tolerable what would otherwise be experienced as incoherence. To understand a myth involves more than proving it to be false. It means figuring out why the myth exists, why it is so important to people, what it means, and what it tells us about people's hopes and dreams (p.29).

This mythical approach helps to understand how contemporary social groups deeply involved with EDM relate to a set of values associated with past experiences, which in turn are often idealised. As Mosco rightly points out, myths are less about historical accuracy and more about serving a function in the present. In fact, for many fans, insiders, and musicians of EDM, historical accuracy gives way to strategic and collective meaning-making processes. This is not to argue that EDM musicians are dismissive of history, but rather to suggest that the narratives (and values associated with them) are shaped by the needs and desires of the present. Take UK rave culture of the 1990s and its symbolic attachment to Detroit techno as a case in point. Reynolds (2013) argues that until the early 1990s Detroit techno was largely associated with Chicago house and UK acid house. However, as rave culture grew and changed during the 1990s, so did its mythical foundations, and,

> you only really started to get people going on about Detroit as this lost origin and foundational set of principles that had been betrayed when hardcore took over in 1991-2. [Detroit] was a reactive and reactionary myth. The rave explosion had really been fuelled by acid house (Reynolds, 2013, p.663).

Reynolds argues that mythical associations ravers had with Detroit techno was instrumental to dissociate symbolic meaning of rave from those of acid house, the music of a previous dance culture that, despite being renounced by ravers, actually laid the foundations of 1990s UK rave.

Operating as myths, the ideals and values associated with the "golden age" of dance music resonate in complex ways with its contemporary counterparts. As indicated by the case of ravers' associations with Detroit techno, mythical accounts are socially constructed and can often be used to brush contradictions and complexities aside in favour of an apparently coherent narrative onto which notions of "authenticity" are projected. The problem is widespread in many popular accounts of the history of EDM culture, with problematic consequences. For instance, Gilbert and Pearson (1999) rightly point out that, when writing about the history of EDM, cultural insiders are at risk of reductionism and overgeneralisation. They illustrate the problem by pointing out how feelings of nostalgia seep into popular accounts, and argue that:

> the suggestion that youth subcultures, such as mod or punk, comprised complete and entire sets of activities, values and participatory codes feeds

> the nostalgia which permeates the treatment of contemporary cultural movements (forever looking for the new punk or the new rock 'n' roll). Though the single discrete dance *culture* as molarity was a mythical ideal even during the heyday of acid house, writers and participants still yearn nostalgically for a moment of primal unity, and oneness – a unity that is quickly revealed to be a valorization of the small scale, of the nascent dance forms and the lives, values, and activities of a small élite vanguard of producers and consumers (1999, pp.22-23, original emphasis).

Mythologizing the past, as Gilbert and Pearson highlight, is problematically embedded in popular accounts of EDM. The problem is compounded by how EDM is experienced (losing oneself on the dance floor and living in the moment, for example), as well as the challenges of writing from an insider's perspective.[21] As a result, Gilbert and Pearson suggest much of the written history of the genre suffers from *epistemological* problems, and they argue that accounts by insiders, or "those with significant cultural capital invested in the era", "are characterized by the considerable care taken *not* to label their stories definitive" (1999, p.5). The observation is insightful, and Reynolds himself acknowledges the problem in the preface for the 2013 edition of *Energy Flash.* Writing in hindsight, Reynolds (2013) accepts that had he taken the effort to make the book less partial and more comprehensive:

> it would be half the book. Because what makes *Energy Flash* work is the partisan zeal burning through it, the unbalanced ardour for one particular sector of electronic dance culture: hardcore rave and all it spawned. This is what makes the book an authentic testament of obsession and belief (2013, xvii, original emphasis).

Here we can see Reynolds concerned with the tension between a distanced analytic view and what he sees as *authentic* accounts: those based on and reflecting upon experiences with EDM with ardour, obsession, and beliefs that seep from the dance

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[21] This issue is addressed in more depth in Chapter 3, in the context of the present research.

floor to the page (2013, xvii). Matthew Collin's disclaimer in the opening pages of his history of UK ecstasy culture, *Altered State*, addresses epistemological problems from the perspective of *who* gets to write history. In his words:

> the story of Ecstasy culture is itself a remix — a collage of facts, opinions and experiences. Differing outlooks and vested interests combine to deny the possibility of a history that everyone can agree as truth; some things are forgotten, other are exaggerated; stories are embellished, even invented, and the past is polished to suit the necessities of the present. Behind one narrative are hundreds of thousands of unwritten ones and who is to say any one of them is not equally important? (Collin, (1997, p.8), quoted in Gilbert and Pearson, 1999, p.5).

Recognising the mythical functions of narratives about early dance cultures is an important step in acknowledging its functions for contemporary EDM cultures. Moreover, it allows us to identify the most significant meanings and values early dance cultures have for contemporary EDM practitioners. In the words of Mosco (2005), a critical view of myths helps us to disturb common sense and understand antagonisms of the present (p.15). Thus, the following sub-sections about the values of EDM provide an overview of each and highlight contradictions. Insofar as avoiding the tendency for reductionism, they also consider how *subgenres* articulate with each other, revealing contradictions, tensions, and fractures.

The coexistence of subgenres in EDM informs the analysis of values, and indicates the rich variety of musical expression in EDM as well as social and cultural fragmentation (Hebdige, 1991; Reynolds, 2013; McLeod, 2001). Internal conflicts in EDM are also a sign of what cultural studies scholars call the struggle for dominance of meaning and representation within EDM, as well as in relation to 'mainstream' culture. EDM is notorious for its incredible number of subgenres (Reynolds 2013; McLeod, 2001; Matos, 2015).[22] Some scholars argue that the large number of

[22] The web resource 'Ishkur's Guide to Electronic Music' (2017) lists two hundred and seventeen subgenres. Even this attempt at a comprehensive overview misses out whole

subgenres in EDM is the result of social divisions marked by "processes of social differentiation and interaction" (Straw, 1991, p.372) and that EDM's "condition of pluralism is commonly cited as the sign of imminent troubles of divisions, rather than of that culture's richness or stability" (Straw, 1991, p.381). In his analysis of the global connections between EDM cultures Straw rightly suggests that alliances created by the circulation of cultural texts across the globe are valuable to the musical culture (1991, p.385), and insofar as these alliances exist, I argue that they are also created and reinforced by the common values spatially dispersed groups share. Moreover, many of these values are fundamental in shaping the production and consumption of EDM, as well as the "overlapping logics of development" (Straw, 1991, p.385) of EDM alliances. Therefore, highlighting the shared values of EDM helps our understanding of socio-cultural forces shaping grassroots EDM networks and grassroots EDM production.

2.4.2 'Together in Electric Dreams': Community, Sociality and the Common Pursuit of Pleasure

Mythical ideals about community and sociality in EDM are associated with notions of a common pursuit of pleasure and egalitarianism. These values are shared in discourses about EDM in the lyrics of songs, its circulation worldwide, and in social norms and behaviours adopted by fans of dance music in the transient social spaces where it is enjoyed. In his analysis of aesthetics and social organisations of 1990s techno, Gaillot (1997) highlights its festive elements and suggests that the events are deeply marked by:

> collective participation and communing at a common event. In this sense, a rave, or even a night out at a club, is the precondition for 'getting into the music' and 'letting go', body and soul (p.53).

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swathes such as grime (and all its ramifications), bass and other more recent developments in EDM, some of them covered in the 2013 edition of *Energy Flash* (Reynolds, 2013).

The joys associated with dancing to EDM blur the separation of mind and bodily pleasures (Toynbee, 2000, p.147), as dancers get absorbed in the rhythm and experience "physical abandon", in what has been described as "Dionysian paroxysm programmed and looped for eternity" (Reynolds, 2013, xxv) – a form of purposeful hedonism. Observing EDM from a sociological standpoint, Toynbee (2000) explains that communal attitudes contribute to a sense of purpose, observing that "what has more often been emphasized about dance music in recent years is its 'good vibe', a determination amongst members to act sociably in the pursuit of pleasure" (p.132). Maria Pini's (2001) influential work on rave and post-rave cultures praises women's experiences of liberation on dance floors and emphasises the collective effort in establishing "safe spaces" that (dis)articulate traditional cultural associations between gender and dancing (p.3).

Popular accounts of EDM reiterate this ideal of communal bonding in the pursuit of pleasure. Reynolds (2013) argues that reduced sexual tension in raves was also associated with the effects of ecstasy, but rave *culture* is more than music and drugs, "it's a matrix of lifestyle, ritualized behaviour, and beliefs" (p.9). Moreover, rave culture is characterised by a general feeling of openness, friendliness, and tolerance, summarised as a "collective single-mindedness […] not elitist so much as tribal", a form of "elective tribalism, people of all sort of backgrounds and types coming together and merging around a particular vibe" (Reynolds, 2013, pp.657-659).[23]

Alongside the common pursuit of pleasure, EDM communities and sociality are characterised by a sense of egalitarianism amongst insiders. In his description of UK 1990s acid house, Collin (2009) writes that it "had an inclusive, open-access ethos rather than a defined ideology, and this was the vital force which drove it forwards" (vii). This ideal carried on in the early 2000s during the expansion of raves on a global

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[23] Tribal metaphors are frequent in both popular accounts and academic works about EDM. DJs are portrayed in a shamanistic role guiding audiences through a trance-inducing ritual via dancing and the multi-sensorial experience created in raves (Collin, 2009; St. John, 2004, 2010). The role of drugs such as ecstasy and psychotropics in shaping EDM cultures is prominent in these analyses.

scale as "evolution was no longer competition, it was a team sport" (Douglas Rushkoff, quoted in St. John, 2004, xiii). The embrace of egalitarianism helps to contextualise why the distinction between audiences and performers (consumers and producers) was downplayed; unlike the rock *auteur* who is "always visible, the known creator of unique works and responsible for the whole production process", in early EDM cultures "the dance music producer tends to be anonymous" (Toynbee, 2000, p.131). As well as producers, DJs revelled outside the spotlight. David Haslam's nine-year residency at legendary club The Haçienda spawned the rise and fall of acid house in Manchester, and in *Adventures on the Wheels of Steel* he states:

> the new acid house culture wasn't about DJs at first. If the DJs, even the good ones, weren't quite anonymous, they certainly weren't stars […] I DJ-ed at the Haçienda nearly 500 times, and I have just five flyers with my name on, mainly because there was no need to advertise […] but also because there was nothing to advertise: there were no guest DJs, no bands or singers, playing live or even miming to backing tapes (2002, xxvi).

In the book, Haslam contrasts the ideal of the DJ as a club regular with the development of superstar DJs during the 1990s, and the tensions between anonymity and stardom he points to illustrate the mythical force of early dance culture values in a changing environment.

Whilst values are associated with traditional meanings, their mythical force obscures past and present complexities. For example, Pini (2001) argues that raves in the 1990s offered liberating potential for female participants, but this is sadly not always the norm in contemporary mainstream EDM cultures, as reported by music journalists (Lloyd, 2015) and observed in clubs and events. Even in the case of 1970s New York disco, egalitarianism and openness were present in limited ways, as illustrated by "members only" policies of restricted access (Lawrence, 2004, pp.80-83). Collin (2009) explains that if you were an insider, "you felt part of a secret society of initiates (attendance was strictly by invitation), a privileged sect which was somehow describing new contours of human experience" (p.7). Unfortunately, EDM's LGBT communities walk a fine line between openness to participation and restricted access, and these policies operate as safeguarding measures against forces that threaten their

existence.[24] Moreover, in regards to the "anonymous DJ", by the mid-1990s EDM caught the attention of major record labels, and the use of promotional and commercial strategies (the "star system") pushed acid house veteran DJs such as Paul Oakenfold and Sasha to global superstardom (Haslam, 2002). Finally, there is an imbalance in the number of male and female DJs, with female DJs facing gender gaps (in pay and opportunities) and challenges similar to those facing other female workers in sectors of the creative industries (Farrugia, 2004, 2012; Gavanas and Reitsamer, 2013; Abtan, 2016; Gadir, 2016, 2017a). Gadir (2017a) summarises, "gender politics in dance music cultures do not necessarily correspond to dance music's historical associations with egalitarianism" (p.50). These contradictions reiterate the mythical force of meanings associated with values of sociality and egalitarianism in EDM.

2.4.3 'These Hopeful Machines': Technology, Experimentalism, and Repurposed Machines

As shown in the discussion about EDM and technology (in section 2.3.2), technological developments and popular music have a long history, and in the case of EDM the connections are clear and profound. EDM genres are "deeply invested in technology" (Farrugia and Swiss, 2005, p.30), and "dance traditions have been at the forefront of studio experimentation since the sixties" (Thornton, 1995, p.72). These entrenched connections are found in the ways the genre has enculturated technology, in the ways devices and machines are used for composition and performance of music, and the very language used to refer to EDM – this is, after all, *electronic* dance music. These connections also point to a largely celebratory discourse about technology, and Thornton (1995) explains that, "'European' dance music is about a futuristic celebration and revelation of technology to the extent that it minimizes the human among its sonic signifiers" (p.72). Referring to early 1970s disco, Kelley (2006) explains that the genre:

[24] See Frank (2007) for a discussion about 'discophobia' and the backlash against the "musical genre [and] the identities linked to disco culture", namely "gay and elitist" (p. 278).

> was a marriage of Black dance music and new technology that revelled in street slang, emphasized funk, and often made references to the world beyond the U.S., from Africa to outer space" (2006, xi).

Such ideals are largely present in later developments in EDM.

The adoption of technology in EDM is associated with a form of techno-optimism that Negus (1999) traces back to Walter Benjamin's 1936 essay 'The Work of Art in the Age of Mechanical Reproduction'. Explaining Benjamin's argument, Negus argues that "the loss of 'aura' associated with authentic original work could lead to a more democratic form of art in which possibilities would arise for participation in both its creation and appreciation" (1999, p.33). Negus disagrees with the notion that mass-produced music media has lost the aura of authenticity, and, as mentioned previously, Thornton (1995) goes further to argue that "within disc cultures, recording and performance have swapped statuses: records are the original, whereas live music has become an exercise in reproduction" (p.4). The degree of subcultural capital associated with the 12-inch record is evidence of the deep enculturation of technology and its value within EDM cultures.

Techno-optimistic accounts in EDM also reveal the mythical visions about the potential benefits of embracing technology, while conversely largely minimising its problems. For example, music made by legendary 1980s Detroit producers – including Derrick May, Kevin Saunderson, and Juan Atkins – allude to two possible futures shaped by technology, one utopian and the other dystopian. Derrick May's 1988 'Strings of Life' is an uplifting eight-minute long epic celebration of human/machine-music – filled with sampled string chords and driving beats – whereas 'Cosmic Cars', released in 1982 by Juan Atkins and Richard Davis, offers a bleak soundscape of relentless machinistic beats, accompanied by the lyrics, "I wish I could escape from this crazy place / Fantasy or dream, I'll take anything". Thus, while EDM allows for multiple (and sometimes contradicting) views about a future created with the use of technology, it is a vision shaped with the assistance of, or in partnership with, machines. Describing the dystopian elements of darkcore (as in hardcore gone dark) around 1994, Reynolds (2013) argues that "4 Hero and other artists on their label […] pioneered the *sound* of darkness too: metallic beats, murky modulated bass, hideously warped vocals, ectoplasmic smears of sample-texture", an

"audio-grotesquerie" which "offered a vast palette of sinister textures and mindbending effects" (p.241, original emphasis) made with samplers, synthesizers, and audio processing effects. Therefore, in spite of some reluctance with potential negative outcomes (evidenced in dystopian views), EDM is marked by the embrace of technology and music-making devices, as these machines become tools for creative expression, facilitators of meaning-making processes, galvanisers of community and sociality, and a central element in EDM cultures.

Discourses about musical creativity and expression in EDM celebrate what are portrayed as new possibilities to generate, manipulate, and write music. Amongst the novelties celebrated are a range of "new" – and often weird – sounds made with machines, which, unrestricted by the constraints of acoustic instruments, open up new pathways for aural explorations via synthesised sonic textures, repetitive machinistic elements (such as metronomically precise beat and loops), and studio techniques that generate sounds beyond limitations of the natural world. But while the work of producers such as Derrick May invoke serious engagement with music-making as a dedicated endeavour (Reynolds, 2013, p.5), experimentalism does not require expensive cutting-edge technology.

Writing about the use of music-making devices in EDM, Gilbert and Pearson (1999) highlight two problems with contemporary connotations about technology. The first is the assumption that the term technology is used as a short-hand for "cutting-edge" (and frequently expensive) technological devices. The second is the *determinist* implication that new technologies drive changes in culture and society (p.110). The association of technology with "new devices" can be explained in the context of what Théberge (1997) calls "technology as a specific type of consumer product and technology as part of the broader phenomenon of consumerism" (p.5). Thus, while there are strong commercial imperatives from consumer electronics sectors (and more recently audio software companies), experimentalism in EDM has historically thrived on the (re)appropriation of old machines for new purposes. Reynolds (2013) explains the relationship between EDM musicians and music devices as:

> complicated. Techno and its sister genres identify themselves as machine music, there's a cult of various sound of rhythm-making equipment, bands taking names like 808 State or House of 909 after Roland drum machines.

> And sonically there's a cult of the machinic, whether it's a mechanistic rhythm feel that isn't swinging but inhumanly regular, or it's square-wave synth sounds that don't resemble acoustic tonalities, or hard-angled riffs. But the idea that techno music is about cutting-edge technology obscures the fact that the culture is largely based on outmoded machinery and media! (p.664).

In many cases these machines were repurposed for new functions – such as turntables for music consumption being used for music (re)production by DJs, or the classic Roland 303 bass synthesizer being reprogrammed to create the high-pitched squeaky sounds that characterise acid house. Moreover, Reynolds (2013) argues that by the 1980s vinyl was also obsolete, pirate radio broadcasting was not new, and many drum machines and other audio equipment used in dance music was not the newest available gear (p.665). Alongside grassroots musicians, other enthusiasts, amateurs, and non-experts thrive in and excel at repurposing machines because "it tends to be culturally astute non-musicians types […] who find all the unexpected applications of the new[ly available] machinery", "people who break the rules because they don't know the rules" (Reynolds, 2013, p.665). While there is a romantic tone in Reynolds' argument, he is right to point out the experimental and innovative actions of grassroots musicians with the devices available.

The incorporation of machines in the making of EDM allowed for sonic innovations and new sets of cultural meanings. For example, the development of the "four-to-the-floor" beat of house music can be traced back to disco, but in house music the human drummer has largely replaced by the drum machine.[25] In this shift, the beat in EDM merges technological devices and socio-cultural meanings associated with machine-like precision and repetition.[26] However, Toynbee (2000) argues that this level of

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[25] Unlike human musicians, drum machines are capable of metronome-like precision, which has been fundamental in defining the rhythmic qualities of the EDM beat as well as the cultural meanings associated with it.

[26] Hesmondhalgh (2001) rightly argues that repetitive beats are not exclusive to EDM as other popular musics rely on beats to drive audiences to dance. However, in EDM the repetition extends from the rhythms made with drum machines to the seamless non-stop transitions

technological enculturation in EDM ruffles critics and they frequently conflate aesthetic and social meanings in their portrayals. For example, when critics of EDM downplay its "square' beat, it is difficult to know if they are being critical about the use of the devices or the meanings associated with dancing to EDM – probably a measure of both. Writing about critics of the four-to-the-floor beat, Toynbee (2000) suggests that:

> the problem with this extreme scepticism about the creative potential of contemporary technology is that it short-circuits analysis and consigns discrepant tropes to an irrecoverable past. In fact when we examine the digital beats of house and techno there are few grounds for techno-pessimism. Rather, hi-hat voicings show that participatory discrepancies are alive and kicking even in the purest of pulse cultures. What producers seem to be up to is subversion of the metronome beat (p.146).

Toynbee refers to the creative potential of professionals, but in the case of grassroots musicians the creative potential is deeply associated with, and in many cases constrained by, their material conditions. By adopting old and outmoded technologies, grassroots EDM musicians are able to expand their creative possibilities and bypass the limitations of technology as "high-end" expensive consumer products. Moreover, it is evidence of the DIY ethos of EDM.

2.4.4 'The House That Jack Built': DIY Ethos, Power, and Autonomy

Following the tradition of punk and post-punk, the production of EDM is largely informed by a DIY ethos (Gilbert and Pearson, 1999; Toynbee, 2000; Abtan, 2016). In fact, concerns about power and autonomy in DIY are central questions in studies of punk, post-punk, and indie rock, and these studies provide a basis to understand how DIY influences EDM. In a broad sense, the DIY ethos can be understood within the art versus commerce tension, bearing important aesthetic, social, and ideological

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between tracks, thus reinforcing the idea of rhythmic 'permanence', albeit with rich polyrhythmic variations.

implications for grassroots musicians. DIY ethos provides musicians with "symbolic resistance to the totalizing discourses of capitalism" (Strachan, 2007, p.247), constitutes a "set of social practices – practices of consumption, of production, of interaction" and "a sense of community" (Kruse, 1993, p.37), and informs musicians' relationships with institutions such as record labels and distributors (majors and independents). At its core, the adoption of a DIY ethos by musicians supports and fosters what Klein et al. (2016) describe as "cultural autonomy", defined as the efforts to engage in:

> activities that may be understood as creative and/or artistic, and that likely relate to economic security, but also activities that do not clearly fit these categories, including choices of distribution or affiliation informed by ethos or ethics (p.1).

Using the practice of remixing in dance culture to highlight the basic principle of DIY media production, Lankshear and Knobel (2010) point to "the innovative 'make do', and 'invent on the fly' character of this kind of remixing and modification of existing music" (p.8). From their perspective, DIY fosters a considerable level of cultural autonomy insofar as technical challenges are overcome. However, the DIY ethos extends beyond innovative aesthetics and personal commitments to include social components. Writing about the difficulties facing female EDM producers, Abtan (2016) explains that:

> electronic music is a DIY culture centred on youth. There is a significant social component, not only in learning how to produce electronic music, but also in the performance and marketing of it. The necessary skills are passed around closed communities and friendship networks, which are often predominantly male; as a result, solo female artists have more difficulty acquiring them. The problem is compounded by social structures. There are fairly well documented behavioural differences in the gender-normative ways that young boys and girls learn (p.55).

The DIY ethos informs the production of EDM on many levels. For example, Hesmondhalgh (1998) argues that EDM production in the UK during the 1990s was largely decentralised and distributed mostly by independent record labels. Moreover, because it had high subcultural value its promotion required low budgets, which suited

independent producers and cheap(er) DIY music worlds. Moreover, Toynbee (2000) argues that producers and DJs embraced a democratic tendency to create EDM incrementally in a "continuous flow", and in small numbers (such as limited vinyl releases), contributing to constantly innovate the genre (p.161). Much of this innovation was supported by DIY networks of production and circulation which facilitated the spread of large numbers of subgenres.[27] Alongside collective production and hyper-innovation, Toynbee (2000) also suggests that EDM prioritised *genre* over the cult of the *auteur*, and "the new forms of production and dissemination in dance music actually represent an *extension of social authorship* rather than a substantially new form of music-making" (2000, p.161), and in doing so, dance music production "extended to take on a more inclusive and democratic form" (p.162) facilitated by a new kind of sociality based on a network model (p.161) which builds on previous DIY ethos and institutions. However, in spite of all the benefits provided by DIY networks, there have been setbacks and ambiguous consequences for EDM musicians, leading to important, yet limited achievements.

There are good reasons why DIY practices are seen as limiting in providing greater autonomy and power for EDM musicians. For example, Hesmondhalgh (1998) shows that during the 1990s, independent dance music companies (namely independent labels) moved closer to major records and their business strategies. Independent labels began to rely heavily on hits crossing over to mainstream charts, developed close connections with corporate partners (for distribution deals), and increasingly adopted the music industry's "star system" to minimise risk (Hesmondhalgh, 1998). The close relationship between independent and major labels is, as Negus (1995) suggests, a characteristic of *creative* and *commercial* decisions taken when music production is scaled to industrial levels. There are also *political* limitations to EDM's DIY ethos, and Straw (1991) suggests that even though the idea of a cultural 'underground'

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[27] McLeod (2001) argues that the variety of subgenres of EDM is not only the result of decentralised production and identity formation, but also "the rapidly evolving nature of the music, accelerated consumer culture, and the synergy created by record company marketing strategies and music magazine hype" (pp.73-74).

moulded around punk has been extended to EDM, the latter lacks the degree of political dissent of the former, and “throughout the early 1980s the political dimension of dancing was implicitly imagined as that which, within the experience of dance and dance music itself, was held back or constrained” (Straw, 1991, p.177). In sum, while DIY can offer much to EDM, there are serious limitations to be overcome in the pursuit of greater power and autonomy by EDM musicians.

The deep connection with technology has brought yet another element of DIY ethos to EDM musicians. In ‘The Californian Ideology’ Barbrook and Cameron (1996) strongly suggest that utopian discourses about technology helped to fuse “the cultural bohemianism of San Francisco with the hi-tech industries of Silicon Valley” (p.1), and “without its DIY culture, California’s myths wouldn’t have the global resonance which they have today” (p.9). During the 1990s these optimist discourses about technology gained renewed strength as viable alternatives to increase musicians’ autonomy. With regards to EDM, Luckman (2008) explains that:

> dance music is a product of the DIY age. Not only at the very core of its manufacture does it claim to democratize production, but its own growth has run parallel to that of computer-mediated communication and mobile telephony. Computers and desktop publishing, the internet and home studios have furnished a technologically literate cohort of young people with many options for self-expression and, significantly, public dissemination of their ideas and cultural products (p.192).

Moreover, Prior (2010) suggests that the changes brought by digital communication technologies to the production of EDM are much more widespread as it,

> is one of global reach, speed, ease of use, and absolute scale. One might even suggest that the DIY ethic so cherished by punk rockers is no longer an activist ideology, but a systematic, structural condition of the production of music itself (p.404).

These changes affect not only music production, but also other forms of media production, such as fashion and beauty blogging in social media platforms (Duffy and Hund, 2015), and audio-visual production in UGC platforms (Lobato, 2016). The affordances of online platforms have also fostered what Reitsamer (2011) highlights as an entrepreneurial form of DIY production in EDM, and grassroots musicians have

increasingly adopted promotional strategies to circulate their content, gather attention, and monetise from the advertising business model used by online platforms. In the case of EDM, these discourses build on the idea of self-sufficient production, circulation, and promotion by musicians as a form of cultural entrepreneurship in the digital world.

With the aid of online UGC platforms, contemporary DIY EDM production offers potential for cultural autonomy and power for musicians, yet it remains limited. In a historical context, Lobato (2016) explains that the growth of UGC platforms from start-ups to large media corporations has contributed to the development of an ambivalent “hybrid cultural-commercial space” (p.11). Writing about audio-visual production on YouTube, he argues that in its early days the platform “was characterized by the promise of direct, DIY communication with a global audience, and its corporate image was that of the upstart outsider. Today, YouTube is thoroughly mainstream” (Lobato, 2016, p.1). The growth of UGC platforms into giant hybrid media-IT corporations creates problems for grassroots EDM musicians who embrace them as part of their DIY efforts to circulate and promote music (discussed in Chapter 6). Focusing on music-making and the growth of online platforms, Rogers (2013) adds:

> despite the distributed and DIY promises of the early web, as digital media companies that trade in music expand globally (e.g. YouTube, Google, Facebook, Twitter, Spotify, and Deezer), they by and large have decided to be allies rather than adversaries of the major music companies (pp.86-87).

The adoption of a DIY ethos alongside the affordances offered by digital communication technologies has helped grassroots musicians to overcome important limitations, and the circulation of self-published music is arguably the most significant development. However, as online platforms grow into large corporate conglomerates they take over the roles once played by major record labels, and operate as mediators between musicians and audiences. Thus, as corporate behemoths, online platforms can limit the degree of power and autonomy available for grassroots musicians and undermine their DIY efforts, with serious negative consequences for those interested in challenging power distribution. Dale (2009) argues that:

> there is no reason to think internet-based social networks to be unhelpful to the DIY independent movement but every reason to presume that, for those interested in producing […] counter-hegemonic agency […], questions of power and power relations remain pressing (p.191).

As UGC platforms such as YouTube and SoundCloud were incorporated into either large corporate conglomerates (Google in the case of the former) or the investment portfolios of financial investors (the latter) they have changed the balance of cultural autonomy and power available to its users. These changes have undermined the potential of the DIY ethos for grassroots musicians who opt to use their services. Yet, the struggle for power via DIY initiatives remains alive in several initiatives, from independent websites for musicians such as the independent remixing website CCmixer, to the efforts of internet advocates and programmers who hold onto the mythical ideal of "a completely decentralised network based on privacy, security, freedom" (Irvine, quoted in Harris, 2018). Kleiner (2010) sums up the problem and points out the stakes of the challenge as he argues that:

> competing software makers, like arms manufacturers, play both sides in this conflict: providing the tools to impose control, and the tools to evade it. The non-hierarchical relations made possible by a peer network, such as the internet, are contradictory with capitalism's need for enclosure and control. It's a battle to the death; either the internet as we know it must go, or capitalism as we know it must go (p.7).

Having reviewed frameworks from media and communication studies, popular music studies, and literature about EDM that contribute to the investigation of grassroots EDM production, the next chapter examines the research design, its methods, and ethical concerns.

Chapter 3
Research Pathway

3.1 Introduction

The objective of this chapter is to examine the research design, methods, and procedures used in this thesis, collectively referred to as the research pathway. It follows Maxwell's description of successful qualitative research design as "an ongoing process" (2005, p.2), which requires balancing goals, conceptual framework, research questions, and methods with concerns about validity at all stages of the project. The research pathway employed in the present study follows the suggestions examined in section 2.2 from researchers of media and communication (and associated fields) who call for more investigation about cultural production in general, and grassroots cultural production in particular, which brings micro and macro analysis together. The research pathway was designed according to the main aim of the thesis, namely to deepen our understanding of contemporary grassroots cultural production. It does so through an in-depth investigation of grassroots EDM production – via the analysis of producers' experiences and practices – embedded within the larger context of cultural production in the twenty-first century.

The research pathway focuses on the *microanalysis* of grassroots musicians and contextualises it within the *macro* view of contemporary cultural production. In doing so, it follows Havens' et al. (2009) call for a midlevel approach, which is designed to take into account the experiences, practices, and values of grassroots EDM producers as part of the larger context of cultural production. Moreover, by investigating the production conditions and experiences of grassroots producers, the present research is informed by concerns from cultural labour studies; especially those that pay attention to workers "*below the line*" (Mayer, 2011), and examines grassroots production relating to the *transformations* the media industries have been through with regards to media digitalisation, grassroots production, and use of software and hardware for production (Paterson et al., 2016) and the expansion of digital

technologies as "not just media technologies but technologies that are at the heart of all industrial sectors" (Wittel, 2017, p.251).

The research pathway undertaken in this study is informed by and structured according to traditions of *qualitative* research. Qualitative research is well suited to the study of grassroots cultural production because it addresses the *experiences* and *interpretations* of participants (Hesmondhalgh and Baker, 2011, p.13), thus opening up a window into musicians' artistic, professional, and personal lives that allows us to understand the nuances and dilemmas of cultural producers. Moreover, Maxwell (2005, pp.22-23) highlights that qualitative research contributes to: 1) revealing *meanings* from the analysis of participants' perspectives as well as processes of meaning-making; 2) examining the specific context participants are in and how it influences their actions; 3) identifying "*unanticipated* phenomena and influences" (p.22, original emphasis); 4) highlighting processes in which "events and actions take place" (p.23); and 5) developing causal explanations about how events, actions, and processes shape outcomes. However, for all their advantages, qualitative methods have limitations: participants may be too eager to please, they might overstate knowledge about issues they are uncertain about, or provide a partial and/or biased view of complex issues (Maxwell, 2005, pp.110-112). Following the best practices of qualitative research, these limitations are acknowledged and minimised with the inclusion of data from several sources, in a process called *triangulation* (Fielding, 2012). Therefore, this research includes data from various sources, designed to complement and challenge each other. The objective is to provide a rich analysis, robust conclusions, and increased overall validity (Maxwell, 2005, pp.105-107).

Data sources follow the method of triangulation. The microanalysis of cultural production is based on a qualitative data, which also draws from ethnographic approaches. The ethnographic approach has been used in studies of grassroots popular music-making (Finnegan, 1989; Cohen, 1991), EDM studies (Thornton, 1995; Mjos, 2013), television production (Lee, 2011), screenwriting (Conor, 2014); sociology of culture (Bourdieu 2000; Becker 2008), music(ians) and social media (Baym 2007, 2012; Beer, 2008; Baym and Burnett, 2009) and online intimacy (boyd 2014; Miguel, 2017). Qualitative data gathered in this study includes in-depth semi-structured interviews (with 24 participants and approximately 36 hours of recorded audio),

participant observation in the world of grassroots EDM (~24 in the UK), and analysis of user profiles and online content uploaded by participants to UGC platforms (like SoundCloud). Macro analysis relied on material published by online specialist media and press about EDM focused on 'underground' worlds (such as Resident Advisor) and 'mainstream' (like DJ Mag), business analysis of the music industry and its intersection with the tech sector (such as Digital Music News, TechCrunch, MIDiA Research), reports about the music industry (Berklee, Nielsen, IFPI), and academic scholarship about cultural production and the media industries.

The chapter is structured as follows. I first present the layout of the research design, by discussing the advantages and challenges of researchers who occupy the position of both cultural insider and analytical outsider. Second, I describe the methods used to recruit participants, collect data, and analyse the dataset. Third, I discuss the main ethical issues of the research, and explain my choices. And finally, I address the limitations of the study.

3.2 Research design

Research projects are often informed by the personal and professional backgrounds of researchers. Experience and expertise in the field of investigation provides specialised knowledge and contextual information which is helpful in explaining complexities and details that might otherwise remain unnoticed to outsiders. Feminist media scholarship emphasise the positive aspects of acknowledging researchers' blend of life and work as it highlights an "epistemology of insiderness" (Reinharz and Davidman, 1992, p.260) and helps readers to better understand the research and its context in light of the researcher's background (Ellis, 2004, p.73). Popular music scholarship features a number of researchers with backgrounds as musicians (Becker, 2008; Finnegan, 1989; Negus, 1992), audio engineers (Jones, 1992), and DJs and music producers (Rietveld, 1998; Pearson of Gilbert and Pearson, 1999; Mjos, 2013,

Attias, 2013; Fikentscher, 2013, Gavanas of Gavanas and Reitsamer, 2013; Abtan, 2016).[28]

The original motivation and early design of this research was informed by my background as a musician and academic researcher. For little over a decade (until the early 2010s) I was deeply invested in the world of independent EDM as a working musician operating in and around the city of Sao Paulo – Brazil's largest and most significant EDM hub. During this period I observed, and experienced, significant changes in the practices of electronic dance musicians as they adapted to the transformations in the landscape of cultural production – particularly with regards to their increasing use of online platforms and other digital technologies for making, playing, and circulating music through the internet. As a researcher, I investigated the social history of grunge in the 1990s using an *oral history* approach based on in-depth life stories interviews (Rauh, 2003). I later examined musicians' experiences with tangible digital musical interfaces (the Reactable) using mixed quantitative and qualitative methods (Rauh, 2008). My background as a musician and academic researcher informed both my choice of topic and the methodological approaches used in this project.

Being an insider to the musical world one is investigating provides advantages, but it also brings challenges and potential negative consequences that require consideration throughout the project. Writing about dance music culture, Gilbert and Pearson (1999) suggest that "any intellectual attempt to describe, analyse or account for shared experience would […] benefit from sharing in that experience" (p.17), but they highlight two main sets of dangers in doing so. The first involves notions of authenticity and authority: dance music writers must recognise what "the responsibilities that 'being there', and writing about it afterward, entails" (p.17). The second set of problems are the dilemmas researchers face in regards to their position

[28] This trend seems recurrent in EDM scholarship, and may be partially explained by the popularity of DJing, the great advantages of deep knowledge of music to DJing, and the relative low technical skills of beginners.

as insiders, outsiders, and the delicate balance in-between. In an insightful passage discussing the work of Thornton (1995), Gilbert and Pearson (1999, pp.17-19) highlight the contradictions of the insider/outsider position in social sciences research. They argue that the distinction between insider and outsider is "an impossible duality for social science to maintain" (1999, p.19), and the problem is particularly acute in the study of dance music because academic discourses about dance culture "still considers that to understand the irrational, the loss of self, one must cling tightly to the rational" (1999, p.19). In a way, the authors approach the issue by partnering up – Gilbert is a trained sociologist and Pearson an accomplished EDM musician – and use their combined expertise to analyse dance culture. For the solo researcher with a background in the field being studied, it is clear that the participant observes while the observer participates, and, as Hine (2015) suggests, a transition from insider to outsider position allows the researcher to maintain a sympathetic understanding of the field of investigation while allowing for informed critical analysis.

The ethnographic perspective informing the micro-level analysis brings together musicians' practices in offline activities, or face-to-face as some would have, and in online platforms. In this sense, it follows Hine's (2015) suggestion that, in places where the internet "has become a mass phenomenon, it has also, to some extent, become banal" (p.8). As a result, online and offline activities have been interwoven in everyday life, and "the Internet has become an infrastructure that underpins the things that people do, rather than a foregrounded activity that they do in its own right" (Hine, 2015, p.8). The internet is more than an invisible infrastructure, and Salmons (2014) suggests "it is becoming harder to see a firm line between our online lives and our offline lives, and challenging to say whether one is more 'real' than another" (Preface). The blurring between online and offline lives is a direct consequence of the internet as "the first successful technical mediation of small group activity" (Feenberg, 2009, p.79) which fosters digitally mediated communication as "an important advance that we tend to take for granted since it seems so obvious after 30 years of widespread online communication" (p.79). Following these ideas, the research design incorporates musicians' activities from a multi-sited approach that includes both face-to-face and online activity.

The concept of multi-sited research has been also been applied in the investigation of multiple platform use (Hine, 2015). In this context, it is understood that users adopt multiple online platforms according to individual motivations and affordances of each platform. This pattern was identified with grassroots EDM musicians, and during early fieldwork I mapped participants' preferred platforms according to their uses. These include: online streaming of live performances (such as online radio stations and increasingly Facebook's live streaming feature); promotion of content via social media (Facebook and Instagram were frequently mentioned) and UGC platforms (SoundCloud); education and learning through UGC platforms (YouTube and musicians' forums); file sharing (of music, audio samples, and software for audio manipulation) exchanged via private networks and other platforms (Dropbox, Google Docs, peer-to-peer file transfer, and SoundCloud); and portfolio showcasing (SoundCloud, personal websites, Resident Advisor artist pages). Given the wide variety of platforms and uses, I focused on the most widely-adopted by participants to make and circulate music, namely: SoundCloud for showcase, circulation, and promotion of music, and YouTube for learning and access to information (music, live streams, tutorials). Systematic accompaniment of participants' use of all platforms was discarded in favour of a focused approach, and the selection also followed their (uneven) distribution of online activities across multiple platforms. For example, the vast majority of participants are active on SoundCloud and Facebook, but a smaller percentage use YouTube to watch tutorials about music-making. However, for those who watch tutorials online, YouTube plays an important role, and as a major source of information for participants it has been incorporated into the discussion about how musicians learn to play and make music in Chapter 6. The resulting combination of platforms follows the musical pathways participants have adopted in their musical practices.

Alongside the qualitative and ethnographic approach, the research design draws from macro analysis of the music and tech industries, as well as their working conditions as cultural workers. As shown in section 2.2, grassroots musicians operate under similar conditions to those of post-industrial cultural producers in the music industry and other sectors within the media industries. As cultural producers, grassroots EDM musicians are also subjected to inequalities in access to tools, knowledge, socio-cultural capital, and precarious working conditions. To analyse how these issues affect

grassroots EDM musicians, I used the framework of political economy of media and of digital technologies (as mentioned in section 2.2.4) to understand the companies they rely on for their musical activities (online platforms and record labels). Looking at the political economy of institutions was important because these institutions influence musicians and their practices (including making and circulating music, as well as promoting it and oneself). For example, Chapter 4 draws on a macro view of musical education for EDM to contextualise its significance for grassroots musicians, and the influence of informal learning strategies through online platforms in their overall learning processes. Furthermore, Chapter 6 begins with a discussion about the political economy of the UGC platform SoundCloud, before moving on to examine how grassroots musicians adapt their use of the platform according to their individual needs and aspirations, as well as the limitations imposed by the platform. The macro analysis also takes into account insights from concepts developed in Critical Technology Studies (Feenberg, 2009, 2017) and Actor-Network Theory (Latour, 1993, 1996) to examine issues about agency and the roles non-human actors (such as online platforms) play in grassroots musicians' activities.

The participants in this study are grassroots EDM musicians who at the time of the research were based in Leeds (UK) and Ljubljana (Slovenia).[29] The selection of these cities was intended to include urban centres that in the EDM world are relevant on a regional level, yet are not recognised by EDM musicians as global hubs of dance culture. The selection of places and participants was designed to address the technological optimists' claims that digital technologies and online platforms have democratised cultural production and circulation; therefore, the selection of participants and spaces was helpful to investigate cultural production on a grassroots level in places that do not enjoy the advantages that global hubs, (such as Berlin, London, New York, Ibiza, and Los Angeles provide to musicians), including physical infrastructure (venues, clubs), institutional support, great social networks for cultural

[29] Barcelona played a small yet important role in the research. Only four interviews were conducted in the city, but the time spent there during fieldwork opened up connections with musicians in Ljubljana, which contributed greatly to the project.

producers, and subcultural value (prestige in the EDM world). Nevertheless, the connections with global networks of EDM, and the cosmopolitan and multicultural nature of the selected cities make them representative of the values of EDM (as argued in section 2.3) and, more importantly to this research, sites of grassroots EDM production. Leeds features prominently in the fieldwork because of the opportunity of conducting long-term observation and participation in the local EDM scene (~24 months). During this period I was able to observe the everyday experiences of musicians, changes in the social networks in the grassroots music world, and immerse myself in participant observation.

I started my immersion in the EDM music world of Leeds soon after arriving in the city. By August 2014 I had mapped sites where I could meet potential participants and had begun fieldwork. Initial mapping of places in Leeds focused on social and learning spaces frequented by EDM musicians. It is outside the scope of this work to provide a comprehensive discussion about the sites grassroots EDM musicians congregate in, but a brief overview of some of its key places can offer a glimpse of the kind of physical infrastructure available. Jumbo Records is the largest record store in the city centre, and the work of local musicians is displayed in an exclusive section named "local & unsigned artists" (Figure 1 provides a general overview of the store floor, and Figure 2 the local and unsigned artists section). Over frequent visits the staff gradually became an invaluable source of information about the city's varied grassroots music worlds, ranging from EDM to jazz, indie rock, extreme metal, leftfield, experimental noise, and folk.[30]

[30] Other contemporary EDM and 'urban' genres such as grime, bass, and dubstep were notably absent.

Figure 1. Jumbo Records (Source: author)

Figure 2. Local and unsigned artists section (Source: author)

Still within the city centre, grassroots musicians congregate in a number of public houses and small venue spaces. Outlaws and the 212 Bar and Cafe are two examples. Both double as bars/cafes and performance spaces for grassroots EDM musicians who during most of the week and weekends congregate there to play records, socialise, and meet up before going out clubbing or heading out to private parties. Both establishments have small dance floors and their event schedules are packed with local talent. Wharf Chambers is also an important site for grassroots musicians to socialise and perform. It is run as a co-operative and has successfully implemented a progressive code of conduct for its members that has had a deep impact in fostering and supporting local musicians and the community with an overtly LGBTQ-friendly policy. While it hosts a wide range of musical styles, bands, and groups, during fieldwork I observed a growth in EDM-related events, and the success of nights such as Love Muscle (billed as "a pumping gay party") has consolidated Wharf Chambers as a central hub for grassroots EDM musicians.

Other important sites of research and sources of data were conferences organised in Leeds for aspiring professional musicians. I attended a total of four annual conferences organised by scholars from Leeds Beckett University (from 2014 to 2017) called the "UnConference". The event is largely tailored to aspiring professional musicians, as evidenced on its website by the suggestion that:

> if you are involved in music at any level and hope to gain a better understanding of the music industries – as an artist, producer, manager, promoter, enthusiast or otherwise [–] you can come to our event to find out more from leading experts and professionals (UnConference, 2017).

These one-day events feature presentations, panels, talks, workshops, and the opportunity to network with peers and professionals in the music industries – from major and independent label representatives to intellectual property lawyers, union representatives, and music licensing specialists. During these conferences I not only attended talks and workshops alongside local musicians, but met some of the research participants in the audience. The analysis of music circulation online and promotional efforts by musicians in Chapter 6 uses information gathered at these conferences.

In this section I have examined the research design and discussed how it is influenced by the project's academic goals as well as my background as a working musician. I

have discussed the benefits and problems of the insider-outsider research position, and showed how the research incorporates micro-level analysis from an ethnographic approach with other sources offering a macro-level view of the music and tech industries. The section closed with an overview of the places investigated in this research, and a brief overview of the kinds of spaces available for grassroots EDM musicians in Leeds. We now turn our attention to the methods used throughout the project.

3.3 Methods

This section describes the methods used to find and recruit participants, collect data, and the processes used to analyse the dataset. Recruiting methods included a combination of *convenience sampling*, *insider recommendations*, and *purposeful selection* (Maxwell, 2005, pp.87-90). Qualitative data includes semi-structured in-depth interviews with participants, and ethnographic approaches with regards to participant observation, and monitoring of participants' public profiles on online platforms. All recorded interviews were transcribed in full before being inserted into the consolidated data-set for analysis. Online data from participants was collected after the interview and after participants' informed consent. Data for macro analysis was gathered from: academic scholarship and supplemented with information from specialised online media outlets about EDM (which were monitored throughout the research); analyses and comments about the music industry by business and industry insiders; and reports about the music industry. All data was consolidated into a single database, coded, and analysed with the assistance of NVivo, software designed for qualitative data analysis produced by QSR International. The analysis of data in NVivo is explained in section 3.3.3.

3.3.1 Recruiting Participants

Participants were selected from the group of grassroots EDM musicians who use digital technologies and online platforms in their daily musical practices. The selected age group of participants ranged from late teens to veterans of early EDM scenes – at the time of the interviews the youngest participant was 18 years old and the oldest 51. In total, 24 participants agreed to record interviews (10 in the UK, 10 in Slovenia, and

4 in Spain), with 2 of them being female (both UK-based). The (dis)proportion between male and female participants supports research about EDM scenes, which highlight the male-dominated fields of music production (Gavanas and Reitsamer, 2013; Gadir, 2017a, 2017b) and formal music technology education (Born and Devine, 2015). Efforts to address the gender imbalance in participant sampling are addressed later in this chapter.

Throughout project I made sure to openly declare my position as a *researcher* interested in investigating participants' musical practices and experiences. Overt research is not only ethically appropriate, but played an important role within the tight-knit grassroots worlds I examined. Openly declaring my research interest was useful to minimise the reluctance of some participants who, being overly protective of their positions as well-established actors in a competitive environment, could (mis)interpret the objective and outcomes of the research in a negative way (as a threat to their status on an individual level as well as their reputations among larger groups). The offer of anonymity also contributed to easing reluctance and opened new opportunities for research. When asked about their willingness to join the research, participants' first reactions varied greatly between enthusiasm and reluctance, and a number only deciding to join after being encouraged by their peers who took part. Alongside my position as a researcher I introduced my background as EDM musician, and the combination helped to build rapport within the grassroots EDM world, which helped to facilitate further contacts.

The first challenges in recruiting participants were to get to know local grassroots musicians and be allowed into their social networks. During the early mapping of EDM spaces, it became clear that it was important to understand the social dynamics of the grassroots world before inviting potential participants for interviews because, even though EDM musicians typically perform and write music individually, they operate within small social groups, who in turn articulate in larger networks. The longer fieldwork in Leeds allowed me to get acquainted with local EDM insiders in a gradual and organic way. I met the first participant at the 2014 UnConference and the next two while mapping out the places grassroots EDM musicians congregate and socialise. Initial progress was slow, but picked up pace as participants talked with friends and peers about the research and the benefits they experienced in participating

(such as self-reflection, engagement with the research, and the contribution to better understand cultural production and grassroots experiences). As mentioned previously, my position as an overt researcher was instrumental to avoid being associated closely with any established group, and allowed me to navigate through several musical "cliques" and not only observe but interview musicians from various groups.

The EDM world of grassroots musicians in Ljubljana follows a similar social structure (close-knit groups) and dynamics (cooperation and competition), but unlike in Leeds, time for fieldwork was shorter. Thus, initial contacts with local musicians there were facilitated by a respected well-connected, non-musician veteran of the Slovenian EDM world. His assistance was important as it compensated for the shorter time available for fieldwork, and he introduced me to potential participants from different cliques in Ljubljana. Once the first interviews were done participants helped to reduce potential reluctance of others, thus attracting more musicians to participate. Recruitment in Barcelona followed the same process as Ljubljana, but resulted in a much smaller sample and consequently fewer insights into the local social structures and dynamics.

In all cities, once initial contacts were established the recruitment techniques were the same. At the end of the interview participants were asked to recommend other musicians, and in many cases they not only provided further contacts but also offered to introduce them – an efficient technique to access close-knit groups (Seidman, 2013, p.58). However, the technique must be used carefully to ensure sufficient numbers of participants, saturation of data (Seidman, 2013), and reduce potential participant bias due to the close relationship among participants. The problem of selection bias was compensated using a method Maxwell (2005) calls *purposeful selection*, in which "particular settings, persons, or activities are selected deliberately in order to provide information that can't be gotten as well from other choices" (p.88). The strength of this method in countering bias lays in its attempt to increase sampling representativeness, and by capturing various voices and in critical cases it allows for comparisons between more contexts and experiences that could otherwise be ignored (2005, p.90). Purposeful selection was used throughout all stages of fieldwork, but it was particularly useful in the last wave of interviews and fundamental in recruiting the two female participants.

To summarise, the combination of recruitment techniques was designed to reach a wide range of participants, to minimise potential sampling bias, and include participants who would otherwise be overlooked. Immersion in EDM music worlds and insiders' contacts were important to access the close-knit social structure of grassroots EDM musicians and to observe them in action. Once initial contacts were established, participants facilitated further contacts. Finally, sampling was complemented with purposeful selection in order to include underrepresented and overlooked groups in studies about EDM.

3.3.2 Data Collection

Good qualitative research relies on a combination of data collected from various sources (Maxwell, 2005), and this project includes interviews, fieldwork observations and notes, and textual analysis. Such combinations have been used in other studies of digital media (Hine, 2015), social interactions on online platforms (boyd, 2014), and the intersections of online and offline activities in the world of EDM (Mjos, 2013). Ethnographic approaches for data-gathering and collection techniques draw on the toolbox of anthropologists and ethnographers, and Hine (2015) argues that these methods are useful for the investigation of "the conditions created by the increasing saturation of everyday life with various forms of computer-mediated communication" (p.1). The collection of data from multiple sources took into account a method known as *triangulation* (Maxwell, 2005, pp.93-94), designed to enrich data assessment and strengthen the conclusions and overall validity of the research. This subsection explains in more detail the processes and challenges of collecting data.

Fieldwork

Data collection started from the very initial stages of fieldwork. As explained in section 3.2, my immersion in the Leeds EDM music world began in late 2014 as I mapped the spaces (offline and online) where grassroots EDM musicians socialise, network, and perform. During this early period of immersion I established the first face-to-face contacts with potential participants, and by February 2015 I began the first wave of interviews. Following the previous discussion about grassroots musicians' social networks and some reluctance to participate, arranging the initial interviews in Leeds was challenging. Knowing the same could be the case in Ljubljana

and Barcelona, I contacted two EDM insiders who arranged the initial contacts for the second wave of interviews.

The second wave was conducted in two stages, first in Barcelona and then in Ljubljana. I spent two weeks in June 2015 in Barcelona, and conducted four semi-structured in-depth interviews, as well as observation of the grassroots world of EDM musicians.[31] The period was selected to coincide with the Sónar festival; promoted as an event featuring 'advanced music' and digital arts, the festival also features a number of music-related events, including a showcase of music tech start-ups and a music and technology themed hackathon (Sónar, 2017). During its three-days, Sónar catalyses Barcelona in the global spotlight of EDM, and local EDM insiders and businesses take advantage of the influx of music-tourists and numerous parallel events take place in what is known as "Off Week".[32] The second stage was conducted in Ljubljana, during the last two weeks of September 2015. It included 10 semi-structured in-depth interviews and observation of the grassroots EDM music world. The period was also chosen to coincide with the Music Tech Fest, an event about the multiple intersections of music, technology, art, and commerce, which also included a 24-hour hackathon. I was able to observe and interview events' participants (shorter themed interviews), some of whom I had met previously during fieldwork in Barcelona. The third and final wave of interviews was conducted from January to March 2016, and included four semi-structured in-depth interviews recorded in Leeds. Participants were selected according to gaps identified in the sample – notably female participants and veterans of the UK EDM music world.

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[31] The two online interviews were conducted with participants originally contacted in Barcelona who were unable to meet in person at the time.

[32] Originally named 'Off Sonar', these non-sanctioned satellite events take advantage of the convergence of great numbers of fans, musicians, press, and industry people in the city. In 2017, the Off Week website listed 187 events by some of the most well-established musicians and promoters from around the globe (Off Party, 2017). Considering unlisted events, the total number is certainly much higher.

Semi-structured in-depth interviews

Interviewing is a commonplace data-gathering method used in qualitative research. Interviews with participants were a key source of information for this study because most of the experiences and practices of grassroots musicians go unnoticed (Finnegan, 1989, p.8) and as a result are often poorly documented. The interviews conducted with participants corroborate Hesmondhalgh and Baker's (2011) suggestion that the method is appropriate to "consider the accounts on interviewees about their experiences […] and to listen to some of their accounts of what happens to them, and why they think that things happen in the way that they do" (p.15). Moreover, Seidman (2013) highlights the importance of meaning-making in story telling during the interview process. He explains that, "when people tell stories, they select details of their experience" and "it is this process of selecting constitutive details of experience, reflecting on them, giving them order, and thereby making sense of them that makes telling stories a meaning-making experience" (Seidman, 2013, p.7). Through the interviews, participants provided information about EDM worlds and interpretations of the inner workings of grassroots cultural production, revealed cultural meanings and the processes in which these are created. They also offered personal (self)reflection about their activities and how they see their roles within EDM culture. Interviewing is a dynamic process, and new questions were added to the initial set as the research developed (see the final set of questions in Appendix 3).

Preference was given to *face-to-face* interviews, but when not possible they were complemented with *online interviews*. Both interviewing methods require building trust and rapport with participants (Salmons, 2014, preface), and my preference for face-to-face interviews draws from my background in oral history research, as well as my immersion in the world of EDM and the contacts facilitated by participants during fieldwork. In the following extract, a Slovenian participant articulates his views and the benefits of meeting in person for the interview:

> I was happy because I was seeing that we are going to meet. Because, first of all I love to meet new people, especially when they are not from Slovenia because you know, you always hear a different point [of view], and you always hear something interesting. And, in general, these kinds of talks… they usually evolve into other topics, some other not so kind of official kind

> of topics and this and that. You can easily start to talk and it automatically brings out of you something else. You know, I could think a lot about each question and "officially" write something that probably I wouldn't say. But, now I said it because it's my honest opinion, so… the right way. This is again one thing that I told you… you didn't, you weren't lazy, and you came here and took time and the result is probably better, in Barcelona, in Leeds, wherever.

His words reflect those of leading oral historian Alessandro Portelli (2005), who argues that interviews are the result of 'a dialectical relation' between interviewer and interviewee. In this sense, interviewing face-to-face is important because:

> oral sources are not *found*, but *co-created* by the historian [and participant]. They would not exist in this form without the presence, and stimulation, the active role of the historian in the field interview. Oral sources are generated in a dialogic exchange – an *interview* – literally a looking at each other, an exchange of gazes. In this exchange questions and answers do not necessarily go in one direction only (Portelli, 2005, p.1, original emphasis).

Face-to-face interviews demanded time and effort to arrange and conduct, but ultimately the strategy was successful as it provided high-quality data and helped establish a respectful relationship with participants. Writing about the advantages of interviewing in a broader context, Keith Negus (1999) makes a similar argument about the role of interviews in his study of popular music. He explains that he:

> used interviewing in an attempt to understand how individuals within the music industry perceive and imagine the world in which they are working. I have not taken this as a reality that is simply constructed (a 'reality' brought into being during an interview), any more than I have adopted a naive realist approach and presumed that was is said during an interview can be understood as a 'reflection' of reality. These meanings I have then sought, as much as possible, to place within their organizational, historical, social and geographical contexts […] In this way, I do not intend that the voices simply 'speak for themselves' or provide an index of particular truths and, unlike some academic researchers, I am not seeking to develop so-called 'objective' concepts which are independent of the world views of the people I have placed within my study (Negus, 1999, p.11).

In the context of qualitative research, the ideas of Portelli and Negus about interviewing as co-creation, a meaning-making process, and reflection about the data as part of a larger context, informs the care taken with this source of data and its significance to this study. As expressed in their views, the care and attention paid to participants are also fundamental in the ethical considerations and its implications for this study, discussed later in this chapter.

For methodological and ethical reasons the setting of the interview is important, and participants should feel comfortable to share their views (Portelli, 1991, 2005; Meihy, 2005; boyd, 2014). I asked participants to choose a safe and comfortable place for the interview, preferably with low background noise to maximise audio quality, which helped transcription and data accuracy. Ten participants chose public spaces (cafes and public parks) and twelve decided on private spaces – eight interviews were recorded in participants' home studios, and four chose private settings including living rooms and kitchens.[33] Furthermore, two interviews were conducted through computer-mediated communication (Skype) and recorded with external audio devices. In both interviews, participants were in their homes. All interviews were conducted in languages in which the participants and I are fluent – 21 in English, 2 in Spanish, and 1 in Portuguese.

(Participant) Observation

Observational methods provide valuable insights into the musical activities of grassroots musicians. Observation is a common data collection method in qualitative research in media studies (boyd, 2014), cultural labour (Hesmondhalgh and Baker, 2011), sociology of music (Becker, 2008), music and technology (Jones, 1992), dance music culture studies (Thornton, 1995) and EDM musicians (Rietveld, 1998; Mjos, 2013). Observational methods draw on the concept of participant observation, originally developed by cultural anthropologists, and defined by DeWalt and DeWalt (2011) as a method in which researchers learn by taking part in daily activities "with

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[33] For ethical and safety reasons my location was always known to a trusted third party.

people who are full participants in that context" (p.5), "hanging out" and "conversing (as compared with interviewing), while consciously observing and, ultimately, recording what they observed" (p.4). Observational methods for data collection are also important to qualitative research because they do not rely on declarative data from participants, thus adding another important source of information and reducing potentially biased data.

In my research, observational methods were used to gather data from participants while they performed live, engaged in social activities, planned and coordinated music events, and shared music online. Observations were conducted throughout the fieldwork phase, in both face-to-face encounters with participants and via online platforms. During fieldwork I also had the advantage of being in the role of *observer participant*. In this position, the researcher transitions from observer to participant while retaining the position of *overt* investigator (Berg, 2008, p.81). As fieldwork progressed and my contacts with local musicians grew in number and strength, I took a more active musical role and was invited by participants and other EDM insiders to join in and contribute to their musical activities. In the position of overt researcher engaged in participant observation I engaged in a number of activities, including: being invited as a guest DJ to events organised and promoted by local musicians; contributing with DJ mixes to podcasts; talking about my research on radio shows; writing music (including remixes and original compositions) and trading it with other musicians in person and through online platforms; observing local DJs in action from the dancefloor and from inside the booth; and having access to places and conversations that are restricted to inner circles. Throughout the process I maintained detailed records in notebooks (kept on hand at all times), and wrote down extended memoranda in digital format soon after witnessing the events. These notes were instrumental to record memories while they were still fresh, and, at a later stage, they provided valuable contextual information for the analysis of the data-set. Also, included in these notes are personal (self)reflections about the project, its development, and my role as a researcher immersed in the world of grassroots EDM.

Participant observation was useful to provide information to complement data from interviews and to contextualise musicians' behaviour. Immersing myself into the worlds of grassroots EDM musicians was also important because of my previous

experiences as a working musician; through observation I witnessed participants' experiences and practices grounded in a markedly different social, economic, and cultural setting. Thus, the combination of observation and the data it generated contributed to the process of self-reflection that enriched the analysis.

Online Content

As an extension of observational research, I monitored participants' public profiles on online platforms for a period of up to six months after the interview. My aim was to monitor the kind of content uploaded, the frequency of posts, its formatting, and associated information to analyse it in relation to the data gathered from interviews and observations of participants' offline activities. As mentioned in section 3.2, participants engage in multi-platform use in their online musical activities, and participants cast their nets widely when sharing, circulating and promoting content online. They typically use a combination of platforms, including social media, UGC platforms, private peer-to-peer networks, privately shared file folders, and streaming platforms. In this project I focused only on musicians' use of publicly accessible online platforms, most notably UGC platforms, with special attention to SoundCloud – arguably the most popular and reputable platform used by grassroots EDM to upload and circulate audio content publicly (examined in Chapter 6).

The type of online content I was most interested in was audio uploaded by participants (original tracks, remixes, DJ sets, podcasts), textual and other visual information available in their artist profiles (short biographies, contact information, affiliation with labels, profile pictures, album covers), and interactions with other users (such as comments on tracks). I asked for participants' consent before I began monitoring their profiles, and no direct quotes were used from their communications with other users for ethical reasons (Salmons, 2014). Screenshots from users' profiles were extracted using specialised software (NVivo), and audio content was downloaded upon participants' authorisation. Alongside publicly available content, SoundCloud offers a few private features (direct messaging, audio content reserved in private), and I did not ask permission to access these for ethical and moral reasons.

Throughout the whole data gathering process participants were not offered financial rewards for taking part. In a few cases, specifically when interviews were conducted

in public spaces (in cafes, music venues, pubs), I offered to pay for refreshments. Curiously, half of the time the offers were declined, and in these cases participants declared they were satisfied to be able to help with research into something they care about deeply, and felt that the chance to reflect about their own music and musical practices contributed to a sense of artistic and personal growth.

3.3.3 Data Analysis

Data from interviews, observations, notes about uploaded content, and sources for macro analysis were gathered into a single dataset and analysed using specialised software for qualitative research (NVivo). By unifying data into a single set I was able to cross-reference and follow the triangulation method mentioned previously. For example, the analysis of content uploaded by participants to SoundCloud was used to illustrate and contest their declared strategies for circulation and promotion online (discussed in Chapter 6).

The initial analysis of data from interviews was done during transcription. While transcribing interviews I wrote notes and memos which were helpful to "develop tentative ideas about categories and relationships" (Maxwell, 2005, p.96). Moreover, transcriptions started as soon as possible after the interview was finished, thus minimising the amount of time elapsed between recording and transcription. I transcribed interviews in their entirety, in an effort to capture as much detail as possible, to search for information embedded in linguistic idiosyncrasies (particularly useful for participants whose first language was not English) and to remind myself of non-verbal cues noticed during the interview that could otherwise be lost (such as body movement and emotional reactions). Once transcribed, I sent participants a copy of their transcript in digital format, alongside a list of items for further clarification.[34]

[34] Namely, details lost in audio, dates, and the correct spelling of names, places, and people, which was particularly helpful from Slovenian participants.

Alongside accuracy and ethical concerns, sending participants the transcripts of their interviews was a gesture of respect for their time and attention, as well as another opportunity to build trust and rapport.[35] Once all interviews were transcribed and revised they were added to the full data-set on NVivo.

The following stage of examination of the data-set followed the method of *thematic analysis*, a process designed to highlight emerging topics, key themes, and connections between data from various sources (Saldaña, 2012, p.96). In this initial stage the analysis was performed using *coding techniques*, which Richard and Morse (2007) argue are more than a process for identifying themes and topics: "it leads you from the data to the idea, and from the idea to all the data pertaining to that idea" (p.137). I used the following coding strategies: *attribute* (to detect key themes), *subcoding* (to unpack large clusters of data), *in vivo* (to highlight participants' views), *values* (to clarify participants' positions and views about topics), and *versus* (to unpack contradicting information from participants) (Saldaña, 2012, pp.69–115). The analysis of the data informed the structure and sequence of the empirical chapters (4 through 6), and draws on a ground-up perspective of their activities and experiences as cultural producers which partially informed the contents of the empirical chapters. For instance, Chapter 5 discusses participants' motivations alongside working conditions and Chapter 6 examines learning alongside music-making in part because the analysis of the data indicated the two topics of each chapter were closely related.

Large data-sets with information from various sources require careful management and appropriate analytical methods. Following coding, I used *ground-up* analysis to examine how the data related to the theoretical frameworks used in the project (as examined in the previous Chapter). Maxwell (2005) explains that the move from descriptive categories of data to substantive, or theoretical, is important because it allows the researcher to systematically develop meaningful conclusions from the coded data-set (p.98). Moreover, Bazeley (2007) argues that managing well sets of

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[35] Some participants provided extended comments about the transcripts, which were inserted into the dataset for further analysis.

qualitative research data can benefit from a deeper analysis that goes beyond arranging data in descriptive themes. Software for qualitative data analysis is helpful because it can be used to draw connections, associations and links within the large dataset, and as Bazeley (2007) suggests, “themes only attain full significance when they are linked to form a coordinated picture or an explanatory model” (p.9). The use of information from macro analytical perspectives draws on claims for more context in the analysis of data from ethnographic approaches. Thus, data about macro views were used to provide context to participants’ practices and experiences.

In this section I have explained the methods and processes used to select participants and to collect and analyse data. In the next section I discuss the ethical implications of qualitative research and how these were taken into account in the project.

3.4. Ethics

In the context of academic research, Sieber and Tolich (2013) suggest that ethics “stands at the intersection of competing interests” (p.11) from researchers and participants, but also research institutions and legal requirements. As one of the invested parties, researchers should use moral principles to avoid harm, wrongdoing others, promote respect and fairness (Sieber, 1992, pp.14-16). With these goals in mind, ethical research should be designed to protect the vulnerable from harm that can result from taking part in research (such as emotional or mental distress, embarrassment). Moreover, researchers must balance the risks and benefits provided by the research to those directly involved as well as to society at large (Sieber and Tolich, 2013, p.5). Thus, they argue ethical considerations should not to be confined to institutional review boards and the early stages of research design, but should inform the researcher and project its full development because “the ethical reality when collecting, analysing, and publishing data will invariably be different” (2013, xv-xvi). Indeed, during the execution of this project changes were made to its design,

and these modifications followed Sieber and Tolich's suggestion that they be informed by general ethical guidelines.[36]

The first step in drawing up ethical procedures for this research involved defining if and how participants could be vulnerable to negative consequences. Moving away from the notion of vulnerability as a trait closely associated with specific subgroups (children, elderly persons, low-income individuals), Sieber and Tolich (2013) draw on the "vulnerabilities framework" of Kipnis (2003) to argue that responsible research design must consider participants' vulnerability in the *context* of the research circumstances, and take into account that these change as the project develops. Thus, rather than thinking about vulnerable subgroups, responsible researchers should ask themselves under what circumstances are participants vulnerable. For example, when discussing *deferential* vulnerability, Siber and Tolich argue that "mere courtesy, respect, or unwillingness to offend others may motivate people to display superficial agreeableness that masks an inner unwillingness to participate in research" (2013, p.15). This flexible notion of vulnerability was instrumental in refocusing grassroots musicians from an arguably non-vulnerable group, to a more nuanced vision about which circumstances participants were in during the research that could have potentially negative consequences. I discuss how I applied Kipnis' notion of contextual vulnerability in the following examination of the ethical procedures adopted to protect participants from harm while balancing the risks and benefits of the research and those who took part in it.

3.4.1 Informed Consent and Avoiding Deception

As argued in section 3.3.1, when introduction myself to participants I stated my role as researcher, which offered not only methodological benefits, but also followed

[36] The initial design of this study was approved by the University of Leeds Research Ethics Committee in 2014 before fieldwork started. By 2015 I decided to expand fieldwork to include musicians in Slovenia, and submitted an amendment to the review board, who approved and commended the care taken in following the principles of the design already approved.

ethical guidelines to avoid deception. Potential participants were given an information sheet with details about the research project (see Appendix 1). The sheet included information about the selection process, the objectives of the research, what participants were expected to do, and the potential risks of taking part. Before recordings started, I reviewed the content of the information sheet with participants to minimise risks of *cognitive* vulnerability as a result of "unfamiliarity with the particular language" (Sieber and Tolich, 2013, p.14) – potentially higher among those less fluent in English and less knowledgeable about qualitative research. Reviewing the information sheet, and being open for questions about the project before data collection also played a role in minimising potential confusion about the project because, as Wiles (2012) argues, participants should be aware about the project and any foreseeable negative consequences.

Once participants were informed about the project they were asked for consent to have their information used for research and publication purposes. Wiles (2012) suggests that informed consent can only be obtained when participants are aware of the research and are given the opportunity to join or decline (p.25). The information sheet details the conditions for participation, and musicians were asked to sign the consent form after the interview, and before I accessed their online profiles.[37] Moreover, they were given the option to withdraw from the research up to six months after being interviewed – during this timeframe I sent them their interview transcripts, incorporated comments in the dataset, and in a few cases redacted information they deemed inappropriate. During fieldwork observations I engaged in several informal conversations with musicians and EDM insiders, and data from these exchanges was recorded later in writing (as field notes). No verbatim quotes from these encounters are used in this thesis.

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[37] Procedures for informed consent in the online interviews varied slightly. Participants were given the information sheet prior to the interview and agreed to take part, but their consent was given in oral form rather than in writing.

3.4.2 Anonymity and Privacy

Ethically responsible research design must account for participants' rights for privacy, confidentiality, and anonymity throughout the project (Sieber and Tolich, 2013, p.153). These rights are particularly important when investigating people in vulnerable situations, and the study of grassroots EDM musicians posed an intriguing dilemma: all participants were offered anonymity, but no one opted for it.[38] Few participants seemed worried about potential negative consequences from talking about musical activities in the context of their everyday lives (both in the personal and professional spheres). Moreover, those who did feel uncomfortable disclosing any potentially controversial information were given the opportunity to speak off-the-record, or have it redacted from the transcript. The vast majority of participants saw their musical practices as largely harmless (to themselves and to others), and some participants with serious professional ambitions half-jokingly commented that being part of the research could provide them with an extra source of promotion.[39] Thus, regarding the ethical commitment to protect participants from harm, the main challenge about anonymity in this project was not about anonymising sources completely, but what *kind* of information should be anonymised, to *what extent*, and how to *balance* the benefits and problems of using anonymised sources for this project, for participants, and readers.

In spite of participants' permission to be identified, there were cases where anonymity was justifiable to prevent negative consequences. I used Kipnis' (2003) framework of contextual vulnerability to identify these situations. For example, I anonymised information about: participants' personal problems and other related issues that affect

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[38] In her study about musicians' use of social media Baym (2012) reports that only one out of thirty-six participants chose anonymity.

[39] Refusing anonymity for promotional reasons reinforces the argument made in Chapter 6 about incentive for promotion. The choice to be identified in the research also reflects the casual-professional spectrum, and as public figures professional musicians are expected to give interviews. The mention of promotion suggests participants see a similar function here.

negatively musicians' motivations and working conditions (discussed in Chapter 4); personal and intimate information provided by participants about their businesses and artistic partners, peers, and competitors; and details about unauthorised use of third party intellectual property (such as illegally obtained copies of audio manipulation software, samples, and music). In these cases I have either anonymised the participant's identity, or, as in the case of intellectual property, redacted details about its owners.[40] Moreover, I refrained from using direct quotes from material posted online to avoid reverse searches that could identify participants in vulnerable contexts, as well as information about third parties that could not be checked independently.

With regards to data safety and management I followed the Data Protection Act (British Parliament, 1998) as well as the guidelines provided by the Research and Innovation Service of the University of Leeds (RIS, 2017). Data collected in audio format was transcribed and original audio recordings were deleted. The digital dataset was stored on the servers of the University of Leeds, and encrypted when transported in mobile storage units (laptops and hard drives used for data backup). Physical copies were kept in a locked drawer in the postgraduate researchers' office in the School of Media and Communication. Original data was shared only with research supervisors, and excerpts were used according to the conditions accepted by participants (in presentations, conference papers, and journal articles).

3.5 Limitations

In this section I discuss the limitations of the methods and research design. These limitations are mainly concerned with the sampling of participants, the time spent on fieldwork in different places, and the relationship between online and offline activities of participants.

[40] Given the widespread use of unauthorised software and sampling material (Chapter 5), it was important to acknowledge the phenomenon, but protect participants from harm.

The sampling of participants requires considerations about gender in cultural production. Few female musicians were willing to participate. During the later stages of fieldwork, I revitalised the effort to include female musicians, and by then contacts were facilitated from the rapport built with participants, who not only indicated names but vouched for the integrity of the research. However, the success rate remained low. Possible reasons include a high(er) rate of refusal (which significantly decreased the numbers of potential female participants) and an aversion to what some described as "unwanted attention" and "misguided portrayal" commonly adopted in the popular press when covering female musicians. In an informal conversation about this issue with a female musician she explained, "I'm sick and tired of questions about how it's like being a *female* DJ. What about being a musician? What about my *music*?" These are informed speculations that require further investigation.

The geographical distribution of participants between the UK and Slovenia allowed a view into the world of grassroots EDM musicians, but it is neither representative of the full spectrum of EDM musicians and nor does it allow for a comparative study between the EDM music worlds of the two countries. Nevertheless, the objective of the research was not to investigate geographical and cultural differences, but rather to have a qualitative analysis of grassroots cultural production in the kinds of cities described in section 3.2 (local hubs of EDM connected to the global networks of dance cultures). In this sense, the sample of participants allows for an analysis of their musical practices, and an evaluation of benefits, dilemmas and problems digital technologies offer for musicians according to their experiences. A comparative study of EDM cultures would require a different research design and appropriate methods.

The issue of comparative research also applies to differences between online and offline musical practices, and it would be interesting to follow up this study with an online-centric investigation of EDM culture. However, the most recent evidence from studies about popular music and 'new media' points to a number of similarities between online and offline activities. For instance, Mjos (2013) has demonstrated that the online and offline social networks of EDM music worlds are based on trust and credibility. Allington et al. (2015) suggest that the effects of concentrated physical networks and large infrastructures in global centres of EDM (like London) are reflected in online music circulation in SoundCloud. And Kruse (2010) argues that in

indie rock, "the decentralization and globalization of music production and dissemination have not resulted in the disappearance of local identities, local scene histories, or the perception that there are local sounds" (p.625). Work from these scholars reinforces Hine's (2015) critique of the online-offline divide because, as she argues, internet use is embedded and embodied in everyday life (p.19). This is not to say that there are no differences between online and offline activities, but that in spite of "the history of utopian narratives about new communication technologies", the demise of "subcultural music identities, histories, and institutions is not likely to happen any time soon" (Kruse, 2010, pp.637-38). In Chapter 7 I address directions for future research about contemporary grassroots cultural production in more depth.

Finally, considering that all participants are active musicians, this thesis does not embrace significantly the experiences and practices of *inactive* grassroots EDM producers. During fieldwork I managed to have informal conversations with a number of inactive musicians, and their stories are filled with disappointment, broken dreams, and nostalgia. But they also reveal remarkable levels of adaptation to adversity, the capacity to overcome negative situations, and resignation. It would be interesting to investigate their experiences because it could help our understanding of how musical activity at a young age contributes to one's life outside the spheres of musicianship, and how cultural production is embedded and constrained by other everyday activities as well as other limitations of contemporary cultural production. This issue is also touched upon later in Chapter 7.

3.6 Conclusions

This chapter has examined the research pathway, namely the research design and the methods used in the investigation of grassroots EDM production. The research design is based on a microanalysis of grassroots musicians' practices and experiences from qualitative and ethnographic approach (in-depth semi-structured interviews, observation, and monitoring of online profiles), and is set against the backdrop of macro analysis of institutions involved in cultural production on a large scale (the music industry, tech sector, labour market). Bringing a micro analysis of musicians' activities to the fore of debates about cultural production enriches discussions about power and autonomy of producers, pathways for self-realisation and creative

expression, and how changes associated with digital technologies can enhance and constrain cultural production on a grassroots level.

The epistemological basis of this study draws on my position as an overt researcher and participant observer of the grassroots world of EDM with a background as a working musician. Throughout the process I engaged in self-reflection as a way of unpacking the intricacies of cultural production on a grassroots level, and to analyse it within the broader context of contemporary cultural production. From a position of participant observer I approached potential participants, established contacts with under-the-radar musicians, and immersed myself in the world of grassroots EDM in an effort to analyse their experiences and practices. As I navigated this music world, I collected qualitative information about musicians' activities, and consolidated it with data providing a macro perspective about EDM cultural production. The analysis of the full data-set followed the triangulation method for increased validity and a ground-up approach, evident in the coding methods, and yielding significant results in the content and structure of chapters based on empirical data. The study focuses on EDM musicians from their late teens to veterans of 1980s' EDM now in their mid-to-late 50s, in Leeds, Ljubljana, and Barcelona.

Ethical concerns permeated all stages of the project, and were adopted to protect participants from harm and balance the benefits and limitations of qualitative research to those directly and indirectly involved in it. The Ethical Research Committee of the University of Leeds approved the project twice. While participants did not opt for anonymity and provided informed consent to use data from interviews and observation for research purposes (including publications and presentations), I have adopted a strategy to anonymise content deemed potentially negative according to the contextual vulnerability framework proposed by Kipnis (2003). The chapter concluded with a discussion about the limitations of the project with regards to sample selection and gender, the distribution of participants according to the geographical spaces in fieldwork, and the question about how online-offline distinction could affect EDM cultures and inactive musicians.

Chapter 4
‘Labour of Love’: Motivations and Production Conditions

4.1 Introduction

This chapter focuses on grassroots EDM musicians’ motivations to engage with musical activities and the production conditions underpinning their musical practices. The focus on musicians’ motivations and production conditions (which include both music- and non-music-related labour) is important because much of their actions and the outcome of their musical activities are deeply influenced not only by musicians’ goals, but the material and working conditions they operate under. By examining the production conditions of grassroots cultural producers, this chapter also highlights issues of inequality in contemporary cultural production. Therefore, this chapter aims to answer the questions:

1) What are the motivations of ‘under-the-radar’ musicians, and how are they intertwined with discourses about digital technologies and cultural production?
2) What are the dilemmas and problems musicians face in relation to their motivations and working conditions?
3) How do grassroots musicians balance their objectives and production conditions with their musical practices? And how do these affect their experiences?

These questions inform a normative analysis of the benefits and challenges posed by digital technologies based on musicians’ practices and experiences.

The key point in this chapter is to demonstrate that there are significant benefits and advantages available to cultural producers in the ‘digital age’, but these are accompanied by obstacles and a series of often hidden negative aspects associated with contemporary cultural production. Historically, EDM musicians have relied on machines and other devices to make and play music, and the development of digital communication technologies has expanded the toolbox to include circulation. This

combination of technologies for making and distributing music through digital networks reinforce the idea that, equipped with a computer connected to the internet, 'anyone can become an EDM musician'. In the words of an American EDM insider, "the tools to make and play music were the same tools people were going to use to sell and distribute" (Prince, quoted in Matos, 2015, p.328). Furthermore, the notion that networked computers concentrate the production, circulation, and consumption of culture is embedded in discourses about creativity. Such discourses celebrate the ideal laid out by Montuori (2017, p.6) as he argues that:

> new forms of expression and networked organization involve a much greater degree of grassroots participation than before, the traditional role of […] the artist, the record label, the audience […] are all being supplemented (and in some cases seriously threatened) by this ability individuals have to connect, participate, and even create (p.6).

These liberating notions about democratised media production via technology have seeped into popular views about cultural production, including among many grassroots musicians.

Networked personal computers have indeed facilitated the production and circulation of music and other forms of media content in digital format, yet celebratory discourses tend to belittle negative aspects. Overemphasising potential benefits and downplaying associated problems provide a reductionist view that does not take into account the complexities of serious and aspiring professional musicians' activities. The problem with celebratory accounts of cultural production in the 'digital age' is that, in the words of Burgess and Green (2009), these accounts suggest that "raw talent combined with digital distribution can convert directly to legitimate success and media fame" (p.21). These are not new challenges. Musicians in EDM, and popular music genres in general, have long faced many difficulties in carving a career in music, a point well made by Steve Jones (1992). Writing about rock musicians, he strongly argues that while developments in studio technology during the 1980s contributed to simplify music-making, many of the structural problems endured, and as a result it remained difficult to earn a living as a musician in the early 1990s (Jones, 1992). The situation remained unchanged, Théberge (1997, p.250) argues, with the development of digital

musical instruments (synthesizers, drum machines, samplers, sequences) in the early 1990s.

In this chapter, I use the term "labour of love" to frame the discussion and analysis of grassroots EDM musicians' motivations and production conditions.[41] The term labour of love evokes the ambiguous elements that characterise cultural production (discussed in section 2.2). On a grassroots level, music as labour of love is marked by: 1) a mixture of musical activities driven simultaneously by affective qualities (collectively referred to as *love*) and *work-like* commitments, akin to Umney and Kretsos' (2015) description of the situation facing professional jazz musicians in the early stages of their careers; and 2) as suggested by Vásquez-Cupeiro and Elston (2006), the *ambivalence of passion* among early-career female academics helps to understand why participants' notions of love entails a sense of *enjoyment* and *self-sacrifice* in the pursuit of a calling.

In general, grassroots musicians are not subject to the same level of pressure, work arrangements, and performance expectations as those who rely on cultural labour for their livelihood, but the structural conditions of the cultural market, as Menger (2001) notes, are common to all those who operate within it. Moreover, the differences between casual, aspiring and professional musicians are fluid and difficult to trace both as local cultural actors (Finnegan, 1989) and as cultural workers (Banks 2007; Hesmondhalgh and Baker, 2011). Thus, considering that grassroots musicians' activities rely on their material conditions, and that, as this chapter argues, changes associated with online platforms have arguably not made significant direct contributions to better it, then how have musicians incorporated these platforms in ways that are beneficial to them? What challenges do grassroots musicians face, and what are the potential solutions for them?

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[41] Other scholars use different terms, including "labour of devotion" (Campbell, 2011) and "work as passion" (Umney and Kretsos, 2015), with similar meanings.

This chapter is divided into two main sections. The first discusses grassroots musicians' motivations using a framework drawn from Self-determination Theory (SDT), which divides motivations into intrinsic and extrinsic, while acknowledging significant interplay between them. The second section examines the production conditions grassroots musicians operate under, and investigates three fundamental aspects: unpaid musical activity and exposure as currencies in the world of EDM; the revenue streams from which musicians earn a living and how these affect their musical activities; and how the need to balance commitments from music, work, and life affect their musical activities and shape notions of success and identity.

4.2 Motivations: Why Make and Play Music?

Motivations drive people to act, orient behaviour, and shape activities. Grassroots musicians are a highly motivated group (Finnegan, 1989, p.6), and a combination of motivations spanning the spheres of artistic, personal, and work activities propel them in their musical endeavours. Motivations are complex and interconnected, forming a web in which pressures on one affects the others. For example, the debates about art versus commerce have shown that motivations and rewards connect the individual to the social networks to which they belong. In this sense, motivations operate akin to a system of *virtues*, as proposed by MacIntyre in *After Virtue* (1981), where he suggests that, "virtues are intimately related to each other" (p.155), and affect both the individual and the social group one identifies with. Thus, "the exercise of the virtues requires therefore a capacity to judge and to do the right thing in the right place at the right time in the right way" (MacIntyre, 1981, p.150). The challenge then lies in striking a balance between individual motivations and the wellbeing of the larger EDM community, as evident in tense discussions about distribution and attribution of credit between original music producers and remixers, policies about event admission (free entry, donation, or paid ticketing), and actions for community support (event organising, supporting roles, and sharing resources).

In order to understand the complexity and combination of factors that motivates under-the-radar musicians, I draw on the framework of SDT, which distinguishes motivations based on goals and decision-making processes (Ryan and Deci, 2000). At its most basic level, SDT distinguishes "between *intrinsic motivation*, which refers to

doing something because it is inherently interesting or enjoyable, and *extrinsic motivation*, which refers to doing something because it leads to a separable outcome" (Ryan and Deci, 2000, p.55). Thus, typical intrinsic motivations for grassroots EDM musicians include the pursuit of excellence in skills and knowledge (about the genre and how to make and perform EDM), the possibility to express oneself in meaningful and creative ways, the potential for self-realisation, and to enhance a sense of identity and belonging. Extrinsic motivations include social connections made via EDM, peer recognition, and artistic acclaim. Financial and material rewards are usually classed as extrinsic motivations, but they can also have intrinsic functions.

In SDT, extrinsic motivations can vary according to degrees of potential autonomy. To explain the issue of autonomy, Ryan and Deci (2000) use the example of students, for whom both "parental sanctions" and the pursuit of a "chosen career" are extrinsic motivations. However, they explain that:

> both examples involve instrumentalities, yet the latter case entails personal endorsement and a feeling of choice, whereas the former involves mere compliance with an external control (Ryan and Deci, 2000, p.60).

Material rewards are another good example of how extrinsic motivations vary with regards to autonomy, and aspiring professional musicians are particularly open to the influence of material rewards. Material rewards include both financial gains (money or credit), and non-financial benefits, including goods and services obtained via bartering, and the exchange of favours for material benefits (tickets to events, drinks and other consumables, merchandise, records, and audio equipment) (these are examined in section 4.3).

The intrinsic and extrinsic framework challenges simplistic accounts of musicians' motivations and encourages a nuanced analysis that goes beyond reductionist optimistic views. For example, material rewards (more specifically financial gains obtained from musical activity) are arguably the most contentious motivations for independent musicians on the professional side of the spectrum: too much focus on money can lead to accusations of "selling out", and too little can compromise a musician's ability conduct musical activities and undermine their chances of building

a career.[42] This issue is particularly controversial for EDM musicians and sub-genres that subscribe to an independent anti-mainstream approach, or DIY ethos (as discussed in section 2.3). In the words of one participant with professional aspirations, the difficulties in balancing the desire for material rewards with his musical activities and artistic identity is important because, “it’s not about *selling out*, it’s about not selling *at all.*” For analytical purposes, we begin the analysis with an exploration of the intrinsic motivations of grassroots EDM musicians.

4.2.1 Intrinsic Motivations

The main intrinsic motivations declared by participants include: (1) a feeling of love towards music and associated activities; (2) the appeal musical practices have in building a sense of self, identity and belonging; (3) the notion of engaging with music activity as a “technology of the self” (DeNora, 2000); (4) musical activity as an outlet for emotions, creativity, and self-expression; and (5) the pursuit of skill and knowledge.

Love is a very powerful force in grassroots musical activity. The majority of participants declared their love in two main aspects: music (or the cultural text) and the collection of activities; and experiences associated with music (including dancing, listening, making, and performing). Casual DJ and self-proclaimed “deep enthusiast” of EDM Pete Johnston (early-30s) explained his love for music and musical activities as:

> a really really unique way of relaxing and unwinding, and obviously the way that it makes you feel, it’s… it’s a good thing. It’s the same as if you play sport, or you have a really incredible meal, the feeling in the body of

[42] Recent scholarship has argued that developments in digitalisation, promotional cultures, and globalisation have altered the debate and meanings associated with “selling out” (Klein et al., 2016). As Luckman suggests, “the entrepreneurial possibilities enabled by personal computers (publication, production, reproductive, distribution, marketing) have fundamentally changed the cultural/political relationship to the idea of ‘selling out’” (2008, p.192).

> pleasure. That's what I get from music. And mixing, that's… that feeling that you control it and you can make something even better out of two incredible tracks, and when you find that perfect mix that goes together and you stand back and there's no feeling like that. Playing an instrument is the same kind of thing. It's purely down to the raw enjoyment of it, the feeling of the bass, everything, all wrapped into one. It's pleasurable, something good. I need music in my life.

Johnston's description blends affection for music and musical activities on an individual and collective level, and he uses a combination of metaphors (playing a sport and having a meal) and comparisons with other similarly pleasurable musical activities (playing an instrument) to illustrate the benefits of music in his life. His remarks emphasise two levels of pleasure through music. As a listener, he experiences mind and bodily pleasures commonly associated with dancing to EDM – the feeling of "losing yourself" in the beat, "letting go", and the pleasures of being physically exhausted and mentally relaxed. As a DJ, he experiences a sense of self-determination and 'control' of the audience by blending songs into a continuous mix and setting the desired mood, thus engaging in an act of collective (co)creation and mutual enjoyment. The sense of love expressed by Johnston is largely associated with pleasurable experiences, and while he certainly enjoys mixing records to unwind after work by himself or party with his friends, DJing is an ancillary activity in his life, and has very few negative aspects associated with it. But while Johnston rightly emphasises the pleasurable aspects associated with music, other participants revealed that love includes a complex combination of feelings, rationalisations, rewards, and drives that challenge interpretations of love as pure pleasure.

Participants deeply invested in musical activities, such as veteran musicians and aspiring professionals, had difficulties in verbalising their love of EDM. This difficulty is evident in some of the rationalisations provided about why they "love" music: it "means satisfaction… I don't know [long pause] I don't question it, I just love it"; "I don't think I can answer, it's not that cut-and-dried for me"; "that's the one of the only things that I truly enjoy and feel a sense of fulfilment from"; "it's not really a choice, I feel like I *have* to"; and "it's one of the best activities that I have had so far, and because it feels good". In a discussion about the value of music for local communities, a female veteran musician explained that she refrains from

"overthinking" why she enjoys music because she fears it could negatively affect her creative process.

On a superficial level these extracts may be mistaken as a lack of critical thought, but I suggest they indicate the profound level of engagement and meaning attributed to musical activities by participants. In other words, the lack of simplistic explanations is evidence of the degree with which musical activities have been profoundly incorporated in their daily lives and identities. Writing about deeply committed music fans, Bennett (2013) rightly argues that "music stays at the core of individual lifestyle projects around which work and other elements of everyday life are strategically organized" (p.95). Take the example of Al Bradley (early-40s), who juggles a prolific musical career as a producer and DJ with his day job as a regulations supervisor monitoring the performance of a public institution. Bradley has been involved with EDM for more than two decades, first playing records and later adding the management of his small independent label 3AM Recordings from his home. He began clubbing early, during *Madchester's* acid house days in the late 1980s, and explained how music and musical activities have played an important role in his life:

> whether it's through DJing or making music, it's permeated everything I've done for the last 20-odd years particularly, but more so I think before that. I think if I didn't do it, or if I didn't have some kind of involvement in it, then I'd fall into this sort of category of people who just kind of get up, go to work, go home, go to sleep, get up, go to work, go home, go to sleep. And if that's what those people want to do than great, but I just think there's more than that! Whether it's photography, art, painting, sculpture or whatever it may be. I think it's an important thing to have. I don't know, does that sound a bit cliché? [Chuckles] It's an important thing to have, to have something which is probably beyond an explanation to why you do it. It's an extension of the way to express yourself and blah blah blah.

Bradley's description of why he (still) loves music revels in positive aspects associated with music-related activities, and these have become a central feature of his identity: being a musician is not just about making and playing music, it helps him define the world around him and shapes his being in the world. The deep commitment to music evident in the quote from Bradley is mirrored by a young musician from Slovenia, Kristjan Kroupa, who is a talented DJ and producer in his mid 20s

determined to make a career in the world of EDM. In 2014, Kroupa was one of the 60 musicians selected from several thousands who applied to join the highly prestigious Red Bull Music Academy (RBMA), held in Tokyo.[43] Kroupa explained that,

> most of the people think it's just about the music, but it's not just about the music, it's about the philosophy of yourself, your thoughts, about how you experience the whole life.

He carried on describing his passion for making music as:

> not really intentional, as I *need* all the time, but it's much more like unintentional, or something you have in subconscious, like breathing. You *breathe*, but you don't really breathe intentionally, it's just something that is happening inside of the body… I just started making tracks because something inside of me, something that has to come out, has to be written. But then I got more disciplined about it, you know more committed to it. But still, at the basic level it's something that I have to do, really. There isn't a minute, or hour I wouldn't be thinking about making music.

Comparing musical activity to breathing illustrates the importance Kroupa attaches to music, as well as the deep subjective (unconscious) level music operates at as intrinsic motivation for aspiring professional musicians. These ideals reflect romantic notions about artistic life, shaped by commitment and personal sacrifice in "being an artist" (Becker, 2008; Toynbee, 2000). As shown in the previous quotes, serious musicians like Bradley and Kroupa use music and musical activities to shape their personal identities, and do so on both an individual and collective level.

[43] The total number of applications was not made public by the event organisers, but in 2014 it was 60% higher than the previous year (RBMA, 2014). Being accepted into the RBMA carries high subcultural value in the world of EDM, particularly among aspiring professional musicians.

Musical activities generate a sense of belonging to a wider group. Slovenian producer Matej 'Kleemar' Končan (mid-30s) highlighted how his early efforts to make music were driven by his desire to be a part of the local EDM community:

> I started to make music while I was studying, we had this alternative radio station, a student radio, which was really great […] I was listening to it and I was really fond of it. And I really wanted to be, someday, a part of this community you know? This alternative electronic music community in Slovenia, it really means much to me and I was working on it you know?

For Kleemar, writing music was a way to build his identity as a musician, to contribute to the wider EDM community, and hopefully become part of it. However, as will be argued in section 4.2.2, building a sense of belonging in a tight-knit community of EDM musicians can be difficult and depends on building prestige among the group and being recognised by peers.

Moving on from love and identity as motivations, grassroots musicians also use music as a form of meditation, therapy and mindfulness. In this sense, their motivations mirror findings made by researchers in the field of music and emotion (Juslin and Sloboda, 2001) and music in everyday life (DeNora, 2000). In *Music and Emotion*, Juslin and Sloboda suggest listeners use music for sensorial pleasure, to change or enhance mood, as a link to the past, associated with physical activities (such as exercising or dancing), and for spiritual guidance. Drawing from Juslin and Sloboda's work, DeNora highlights the potential of music to facilitate emotional work, orient daily activities, and to condition meanings. She argues that through these functions music operates as a *technology of the self,* that is, music "provides respondents with a scaffolding for self-constitution" (DeNora, 1999, p.31).

Introverted musicians are a good example of how musical activities are used for self-constitution.[44] One participant from Leeds in his late 20s admitted that his first

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[44] As used here, the concept of self-constitution draws loosely on the work of Korsgaard (2009), in which she argues: "the task of self-constitution involves finding some roles and

experiences performing live were marred by shyness, which severely limited his and the audiences' enjoyment. His early negative experiences DJing drove him to renewed and persistent efforts on his home studio, practicing DJing and music composition in order to perfect his skills and knowledge about the internal structure and intricacies of EDM. Since then he has written and shared more than a dozen tracks online, and even signed a deal with an independent label to release two tracks on vinyl. His production skills, alongside his successful efforts to circulate music online, have allowed his musical life to flourish, and in the process he gained confidence, and eventually overcame his crippling stage fright. In his words, making music also had a beneficial impact in the way he sees the world as it,

> gives me some sort of balance in some way. It helps me kind of think objectively about more things, it gives me a different sort of perception of life.

He continued,

> it's just to be, kind of like sit back and observe the situation I guess, rather than being headstrong and just going into any situation and just kind of acting on impulse. It just kind of makes you sit back and observe it as a whole and sort of make me be able to take parts of life and apply it somewhere else.

Other participants mentioned how musical activities have contributed to managing emotions and mental states. According to Vid Vai, a producer in his mid 20s, musical activities are comparable to:

> a sort of a therapy, you know, to just take up a couple of hours for yourself and make something. This whole process of creating something new is really interesting for me. I mean, it really got me hooked and I never get tired of it, so maybe that's the reason why I like this so much.

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fulfilling them with integrity and dedication. It also involves integrating those roles into a single identity, into a coherent life" (p.25).

Vid Vai's observations reinforce the notion that musical activities provide benefits similar to those of meditation and mindfulness practices. In this state, musicians report a high state of awareness, concentration, and focus during intense music sessions, including live performance and studio production. The experience described by musicians is akin to the highly focused mental state described by Csikszentmihalyi (1991) as *flow*. During *flow* individuals feel a sense of deep absorption in the activity to the point where time seems to be suspended. It is also referred to as being 'in the zone' or, 'in the groove'. Along this line, Annie Errez, a serious DJ and producer in the Leeds area in her mid 30s, praised the benefits of musical activities as:

> almost meditative, because it's like mindfulness you know? When you don't think about anything else, when you don't think about *anything*. And that's why I like to have a long time to do it, because I'll just record and then just listen back and see what is there.

The feeling of being lost in time is an important quality of dance music, and in the case of EDM musicians losing oneself 'in the beat' is experienced on at least two levels: as *listeners*, and, more significantly for musicians, as *agents* immersed in the (re)production of the musical world they inhabit. Take the case of Gabrielle Cooke (early-20s), a beginner with professional aspirations, as an example. In her words:

> I like the fact that… when you [play], in your mix nothing else is going in your head, and you can like completely shut off from everything else. It's like escapism really. And I was just like, I remember when I first started my lessons and I was thinking "oh two hours is gonna feel really long" but it just goes by so quickly […] And it's even better when people enjoy what you're playing [laughs]. It's not just for yourself.

Dance music and dancing to EDM are commonly criticised as a form of escapism (Thornton, 1995, pp.1-2; Gilbert and Pearson, 1999, p.21), and Cooke agrees with the notion of escapism, but she highlights the benefits and pleasures of experiencing trance-like states as both a listener and musician of EDM. Her enjoyment of this mental state is catalysed by audiences' responses and this feedback allows her to, at least potentially, (re)produce the sense of being lost in time to herself and the audience. Thus, DJing for Cooke is about both personal enjoyment and being able to (co)create the experience with audiences.

The creative benefits from musical activity are not limited to making or playing music: listening also provides similar benefits. Juslin and Sloboda (2001) describe positive aspects derived by listeners who use music to connect with past experiences. In the case of musicians, this connection with the past is facilitated by the fact that they can crystallize their own experiences and emotions into music. The Slovenian producer Tom 'Leemajik' (late-20s), a self-confessed shy person who is a professional audio-engineer and casual music producer, commented:

> I make photographs of my feelings through music, and I do have a lot of memories locked inside these melodies and music. I know that when I'll be 30, this is in 2 years [chuckles], or when I'll be 40, I will still remember these feelings through music, more than I would remember through some picture. It is a bit more complicated than a picture, like visual memory or audio memory or smell memory. When the smell gets you, it really brings you back. Smell is the strongest one.

Tom's synesthetic comparison puts the experience of listening to music on par with the power of the sense of smell to evoke memories. His description highlights how he uses his music to connect with deep subjective reactions triggered by the experiences he associates with each song. Moreover, the possibility to circulate these sonically encoded emotions (mostly through online platforms such as YouTube, SoundCloud, and Bandcamp) enhances their benefits as it opens up new channels to share and communicate meanings with others.[45] Thus, Tom's music production facilitates emotional expression through music, and circulating it online provides a channel to bypass his difficulty in doing so face-to-face. Another veteran Slovenian producer,

[45] Montuori (2017) argues that in the twenty-first century the very nature of creativity has shifted from the individual to collective action, and this change has been fostered in large part by discourses about digital technology. He writes: "many of the most interesting social innovations of the last 20 years of so have been about networking, participation, and grassroots efforts. These innovations are connected to the emergence of the internet, of social media, and of a networked society" (p. 6).

Janus Luznar (mid-30s), praised the benefits of self-expression via music. He explained that:

> the best thing that music gave me was a way to express myself in quite a metaphorical manner. So nothing's direct with your music. Actually, it's more like expressing my feelings, not my thinking or my words or my knowledge. Nothing else but my feelings. Because normally it's hard to express your feelings, I mean even when you say something, it's not the thing that you feel, you're trying to explain it but nobody can understand this. But with music you can touch people, or yourself, or anyone, in an unconscious level. That's the thing that really drives me so much with music.

Reflecting on the importance of online circulation, another Slovenian producer, in his mid-30s declared that:

> it's just the reality as it is these days and in the end to me it's important to share. For example when I do music I'm introspected, I do it for myself. But when it's actually finished, I'm not gonna lie to you: then I'm an exhibitionist. It's like, when you're finished, "yeah, here it is!" It's like showing off, "hear this! It's what I do! I want you now to hear it." So I want as many people to hear it as they can.

All three musicians aforementioned cherish the possibility to express their emotions creatively via musical practices, and this is not the reserve of music producers; DJs express similar feelings of accomplishment via creative expression while mixing records, as the quote from Cooke illustrates. As a result, expressing emotions via creative musical practices enhances musicians' personal lives, and acts as powerful intrinsic motivators.

Serious musicians commented that the pursuit of skill and knowledge is an important motivator of their musical pursuits. Being knowledgeable and skilful helps to achieve higher levels of excellence in their craft, increases reputation among peers, and enhances pleasurable experiences with music. Moreover, in live performances and in studio work high levels of skill and knowledge enhance notions of control, flow, mindfulness, agency, and the capacity to improvise and deal with unexpected problems. Xavier Bonfill (late-20s) is a skilled acoustic guitar player and an aspiring

professional composer with experience in jazz and EDM. He explained that early on, learning how to use software for audio synthesis allowed him to expand his musical horizons because:

> there was some stuff that was in my head that wasn't in my hands, and for me [learning] allowed me to go somewhere else, and to do stuff that I wouldn't do, that I wouldn't be able to play because I didn't reach that skills in the piano, I was starting a new instrument at the time, the guitar, and I was even less skilled on that one. So for me that was like a way to dream and go somewhere else.

The hand-head dichotomy he refers to is interesting because it reveals a source of pleasure from EDM-making that is peculiar to studio-based music: unlike musicians' performances with hands-on controlled instruments, software and machines can be programmed and automated to create sounds, thus removing the pressures (and some critics would say pleasures) associated with hands-on live performance. For beginners and those with poor instrumental skills, this hands-off approach to making EDM frees the mind from the limitations of the hand and, in the case of Bonfill, complements his holistic learning and composition strategies.

Serious pursuit of musical activities is also embedded with other, less pleasurable, intrinsic drives such as anxiety, frustration, and angst.[46] In the words of aspiring professional musician Richard Fletcher (late-20s), considerable levels of negative feelings are the flipside of the sense of achievement and fulfilment achieved through music-making. He explained the ambivalent feelings that accompany writing music as:

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[46] For more about negative aspects associated with music production see Thornton (1995) about struggles for subcultural capital among DJs, and Frith (2004) for an insightful discussion about 'bad music' as taste cultures. Hesmondhalgh (2013b) highlights competitive individualism and status among music fans, as well as issues about consumerism. For more about music consumerism see also and Marshall (2014) about record collecting and digital audio files, and Théberge (1997) about EDM musicians' consumption of musical instruments.

> there's a real sense of accomplishment when you've made something from scratch that you actually like. Yeah, just the feeling of making something from nothing, it's the most gratifying thing. I mean, it's hugely frustrating as well, for every one track that I like I would have made 20 that I hate. It's frustrating, and agonising, but still, just so fulfilling when it comes together.

Richard's commitment to pursue a career in music is a factor driving his frustration. He described spending long hours in his studio to frequently end up with unfinished tracks. Many music producers reported negative experiences when writing music, and a large number never finish most of their projects for reasons that include technical problems (losing access to data during system upgrades and other software incompatibilities), lack of motivation, frustration, and the euphemistic 'creative differences' when collaborations fall apart. More often than not, grassroots producers write music alone, and considerable time is spent with monotonous repetitive tasks, technical troubleshooting, setting up and disassembling equipment, and other "non-creative" activities that can easily frustrate inexperienced musicians. The ambiguity between frustration and elation in music-making is another manifestation of grassroots musicians' ambigous relationship with the positive and negative aspects of music. In the words of another participant: "I don't question it, I just love it". When asked why he enjoyed playing EDM, he explained that through it he is able to channel negative feelings. He described his DJing activities as:

> an addiction. I mean, I've got a lot of OCD habits I think, I'm only just becoming aware of a few of them, but mixing is one of them. I don't know what it is, when I stand up there and I put tunes together… I mean, it's great, but it's also so unpredictable. You never know if you're going to get it right, if they are going to like or hate it.

Later during the interview he explained that mixing records gives him a feeling of power and control over his actions and those of the audience; in his words, DJing channels in him "kind of like a God complex". Evoked by musical activities, such feelings of control can provide musicians with coping mechanisms akin to the therapeutic and meditative properties associated with musical activities as mentioned previously.

Making music can also channel negative feelings into powerful creative forces. The case was illustrated by Tom 'Leemajik' (late-20s), the musician with the double musical life – professional sound designer by day and aspiring music producer by night. While talking about the challenges he faces to make music, he demonstrated a high degree of self-criticism that attests to a well-developed sense of self-awareness. He explained what drove him to write what he considers his favourite track, "Keep Up":

> Leemajik: I just need to get this out. This became one thing that… I tried to… I mean, this keeps me going you know? I have a lot of problems, I don't do break dance as much as I used to, I stopped break dancing two years ago and I don't have… any relaxation to give, or any sports or, ahm… a general thing that I could give my anger, sorrow, sadness or anything, or happiness out. And music gives me this window that I could throw this stuff out. The best stuff that came out from me was from anger. Yeah, the best stuff. I mean, yeah, ok, there are those sad moments and you make music and everything is sad, and you feel this sadness you know, and everybody is crying. But anger… anger does some weird things. I made my best track ever through anger.
>
> Interviewer: What were you angry at?
>
> Leemajik: I was angry at some girl [chuckles]. But yeah, this was anger connected to love.

"Keep Up" is a two and a half minute long track assembled with chopped up cuts of synthesised melodies and effects played in a minor key, edited in quick successions in fast-forward and reverse mode. It is a tense, claustrophobic, and heavily beat-driven track that draws from the aesthetic traditions and conventions of glitch – a subgenre described by Cascone (2000, p.12) as "the aesthetics of failure" – and 1990s intelligent dance music, as developed in the earlier works of producers such as Aphex Twin, Autechre, and Squarepusher. It opens up with Tom reading out verses in a deeply digitally altered voice before launching into the percussive and melodic sonic maelstrom. The ability to channel anger and frustration into a productive force was certainly useful for Tom — and it has played an important role in music genres such as 1970s punk and subsequent related DIY-oriented genres.

Clearly participants are driven by many intrinsic motivations, and as the case of serious and aspiring professionals musicians has demonstrated, their drive is largely unabated by the negative aspects associated with it. As Finnegan (1989) has suggested, grassroots musicians may be a minority, but they "turn out to be a more serious and energetic one that is often imagined" (p. 6). Having explored the intrinsic motivations of grassroots musicians from its mostly positive (and lesser negative angles), we now examine their extrinsic motivations.

4.2.2 Extrinsic Motivations

Extrinsic motivations originate from outside the individual. Ryan and Deci (2000) explain that they are a "construct that pertains whenever an activity is done in order to attain some separable outcome" (p.60), for instance, peer and audience recognition, or material rewards. In SDT, extrinsic motivations are characterised by variable levels of *integration*, defined as the degree to which extrinsic motivations are internalised by the individual. The degree of integration affects how motivations operate – for example, highly integrated extrinsic motivations function similarly to intrinsic ones (Ryan and Deci, 2000, p.61). In a study about perfectionism in music students, Stoeber and Eismann (2007) argue that "negative reactions to imperfections were associated with external motivation" (p.2190), but when integrated by the student "perfectionistic strivings should not preclude musicians from enjoying their artistic pursuit" (p.2191). Thus, musicians who integrate extrinsic motivations are less likely to see them as being negative influences, whereas musicians who do not integrate extrinsic motivations are more likely to have negative or ambivalent reactions. In both cases extrinsic motivations originate from outside the individual, but they influence musicians in markedly different ways. The extrinsic motivations of participants examined in this section include establishing and maintaining social relations with

other EDM enthusiasts (sociality with like-minded people via musical activities) and recognition by peers and audiences (artistic acclaim, fame, notoriety).[47]

Grassroots musicians across the casual-professional spectrum cherish the potential of musical activities to foster meaningful social connections with like-minded individuals. Social connections through music offer benefits to musicians on at least two levels: personally (through friendships, partners), and collectively (networks can foster collaboration, increased creative potential, resource pooling). These two aspects overlap and friendships and working partnerships (both personal and working) can form and dissolve around musical projects. On the grassroots level the partnerships and social engagements involved in its constructions challenge the distinction made by Wittel (2001) between "community" and "networked sociality". Wittel explains that "in network sociality, social relations are not 'narrational' but informational; they are not based on mutual experience or common history, but primarily on an exchange of data and on 'catching up'" (p.51). The sociality of grassroots musicians provides evidence that community and networked sociality overlap, resulting in a range of positive and negative outcomes. However, the concept of networked sociality is useful to examine many of the social dilemmas musicians on the professional side of the spectrum face, as the boundaries between personal and professional relations become blurred.

The benefits of social connections vary according to the objectives of those involved. Take the case of casual musicians as an example. Unencumbered by the need to capitalise on their musical activities, casual musicians are much less likely to be concerned about converting social and cultural capital into financial rewards, and in this sense they arguably enjoy a large degree of freedom in establishing personal and socially meaningful connections. In other words, without having to worry about money and the business of making it, casual musicians can focus on socialising and

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[47] Material rewards can be understood as extrinsic rewards, but because they shape the material conditions of grassroots musicians they are examined in more depth in section 4.3.

enjoying personal relationships facilitated by music. Casual DJ Pete Johnston (early-30s) explains that DJing allows him to establish a kind of light-hearted, pleasurable form of sociability with others. At the time of the interview, Pete was living in Barcelona, but had spent the best part of the last ten years travelling, living, and working around the world. Throughout his journeys, DJing and other music-related activities provided both a personal sense of meaning as well as much needed social connections as he moved to new places in different countries. He explained that throughout his extensive travels (he has lived and worked on three different continents), he was "always looking for the good night and people and music". Moreover, music is one of the few constants in Johnston's frequent transitions – not only in the geographic sense, but also as he transitions between different social spheres. He attributes this to the power of music to organise sociality, because, in his words:

> it's like when you hear a track that you don't like, or any music in the street that you don't like, you wanna leave. It's got that amazing power. Good music, people flock to it, and bad music people run away.

What actually makes music be *good,* and *bad*, is open to debate, but as Frith (2004) argues, the label *bad music* is the result of *social interaction* and cultural taste. Thus, bad and good music is in essence a quality defined in relation to how others perceive it, and, as such, carries deep extrinsic qualities. Music, or rather musical taste, has also had a profound impact on Al Bradley's social life. Now in his mid-40s, the DJ and producer explained that,

> I think probably a lot of the reasons why I DJ and write music comes back to the community aspect. If I didn't do music, whether if it was when I was in Manchester or more prevalently here, I wouldn't know 90% of the people I know. I wouldn't be here now.

He explained that the social networks established through EDM provided him with much needed support on personal and artistic levels throughout his adult life, as he moved cities, changed jobs, formed friendships, established a record label and almost went bankrupt because of it. The veteran of the Slovenian underground world of EDM Alan 'Qualiass' Roposa (mid-30s), also highlighted the importance of musical

activities to his social networks, but emphasised the connections between musicians and audiences during live musical performances. He commented:

> I like this more shamanistic kind of approach; that you can actually… make for example, I don't know if it's 50 people, 200, 1,000, if you can make this synergy – you actually see this floating – and you see happy faces and you see that people actually forget about, for 2 hours they maybe forget about their worries, their fuck-ups, their frustrations, they just dance and smile – this is something that I really enjoy in DJing.

Roposa' point reinforces the previously mentioned potential of EDM for flow and as a meditative-like practice, but he emphasises the collective and spiritual-like connections made via EDM; and by evoking a shamanistic approach he highlights the importance of the deep social connections and sociality in EDM events.[48] As another participant commented, the dance floor "is a space where you can think about your life or switch off, whatever you want, and be safe". In the quote by Alan Roposa, he also raises a valid point in highlighting the ephemerality of social connections between musicians and audiences during performances.

Ephemeral and meaningful connections are characteristic of live EDM events and it would be a mistake to dismiss these forms of sociality as superficial, or lacking in purpose. Recent research about intimacy in online sociality reiterates the importance and roles played by transient social connections, which are not less meaningful or intimate than those made face to face (Cruz and Miguel, 2014; Miguel, 2016). Will D'Cruze is an aspiring professional musician in his early 40s, and he commented about the importance of online social connections. For the past six years he has hosted a weekly DJ show streamed on an online radio station. About three years ago he had to change stations, and the switch concerned him because he feared losing his show,

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[48] The literature about dance cultures in the 1990s draws attention to the spiritual qualities of dancing collectively, and comparisons about the roles of DJs as trance-inducing shamans were common, as well as the important role recreational drugs such as MDMA, LSD and amphetamines played. For more detail see Redhead (1993), Collin (2009), Reynolds (2013), and St. John (2004; 2010)

and more importantly, the close social connections and friends he built and maintains through it. Will explained:

> I loved my show, so much, I didn't want to let it go or end up in some… some obscure little station where no one went and listen to. I mean, loyal listeners will follow the personality more than the name of the station. But in my case? I don't know. I could go on to a big station, where there were big names established in break beat, but I am just at the bottom, you know? So it was a weird one. I got quite anxious.

Will's anxiety is evidence of the importance he gives to the radio show, and to his commitment to his audience. Even though he has met very few of them face-to-face (most are based in the US) he considers them friends and values their on-going relationship (his most faithful listeners have been tuning into the show since its early days). Moreover, on an individual level, his radio show is the only regular outlet for his DJing and a much-cherished high point of his week. He explained that were it not for the radio shows, "I probably wouldn't be DJing. I know that sounds terrible, but I love it, it's grown an interest for me, more and more". After the interview I observed him as he played records in his home studio and streamed the show online. His mixing was frequently interrupted by shout-outs to long-time listeners as they logged in, as well as constant message exchange in the radio station's web-based chat room. The same pattern was observed in subsequent shows, when I had the chance to login to listen to his show and was greeted by Will in audio while he exchanged text messages with other listeners.

Aspiring professional musicians create and maintain social networks within EDM not only for personal reasons, but also as a way to strengthen their professional networks and increase their chances of building a career. In this sense, these social relations do seem to operate according to Wittel's (2001) "networked sociality", a form of social relations "based on individualization and deeply embedded in technology; it is informational, ephemeral but intense, and it is characterized by an assimilation of work and play" (p.71). In other words, being socially well connected with influential individuals in the EDM world is a strategy to build what Bourdieu (2000) calls *social capital* and open doors into the professional realm.

One aspiring professional musician from Slovenia (early-30s) explained how social relationships built within the EDM world have helped him jumpstart his career. His interest in EDM began during his teenage years, and soon after turning eighteen he and a friend volunteered to help a group of older, well-established DJs and producers in the area. At the time, the two aspiring musicians would help in any way possible, from initially promoting events, distributing flyers, and shuttling guest DJs around the city, to later DJing as opening acts, writing music and releasing it with the help of their mentors. In his words:

> we were working for them like for several years. My friend was A&R and I was events manager, and I rented a studio which was next room […] So I became friend with him and later on he was my mentor at the university and I started to work as a practitioner in his studio as well.

The relationship between them grew with an interconnected mixture of friendship, mentorship, and business interests; a blend that is common in the professional side of the spectrum in the grassroots EDM world, as well as within the cultural and media industries. But it comes with challenges: in many cases the boundaries separating friendship from competition are ambiguous and potentially conflicting. During the interview the aspiring professional musician was careful to note that:

> I just want you to know that I'm really open and honest and I will say everything to you even if… Look, [worldwide famous producer and DJ] is my friend actually. He's a colleague yes, but sometimes I don't need to *agree with everything* you know? And a lot of things, most of the things I can say it to the face, there is no problem. But still, I don't want to be like, "because I'm an artist I have to be careful" about some things.

This passage illustrates some of the dilemmas and potential conflicts of networked sociality in the grassroots EDM world. Aspiring professionals must balance the benefits of mentorship and working associations with well-established musicians while they struggle to find a voice and a place in what is frequently a close-knit group where reputation plays an important role. The case of the aspiring musician mentioned above shows his strategy to build reputation by adopting an open stance about his views in relation to his mentor's. The lines between personal and working relationships are blurred, and as the case mentioned above indicates, balancing

interests and positions is challenging. The problem, as Wittel (2001) suggests, is that these networked relationships can erode "enduring relationships" (p.63), and aspiring professionals have less power in negotiating as they must tread carefully to avoid damaging their chances for a career.

Another aspect of sociability through musical activities manifests itself in the sense of belonging to a community, achieved through recognition by peers and audiences alike. Participation in these EDM networks is beneficial to grassroots musicians because of sociality, but also because their music-related activities are organised through these networks. The main benefits of belonging to networks of peers mentioned by participants include: *feedback* about one's music; *support,* in technical, educational, and social aspects (technical troubleshooting, tips of the trade, collaborations, and inside information), as well as through professional connections; *mentoring*; and as a source of *friendship*. Kleemar's (mid-30s) initial strategy to break into the local music community was through writing music that he felt true to, but that was also cherished by his experienced counterparts from Slovenia. In his words:

> I really wanted to be, someday, a part of this community you know? This alternative electronic music community in Slovenia, it really means much to me and I was working on it you know? Making some tracks, trying to impress them… to, to... ahm… to be on the radio.

Veteran of the Leeds EDM world Al Bradley (early-40s) reflected on how the respect and admiration of other musicians motivated him to make music. Initially Bradley wanted,

> to be respected within [my] peer group… Now I'm in quite a nice position where those people who I used to aspire to be like, I've already met quite a lot of them and talked to them quite a lot. So to kind of carry on something like that would be the ideal thing for me. To be accepted and respected within the peer group I aimed to be part of it when I started.

Bradley's efforts have been rewarded. Currently he is a household name in Leeds' EDM world, and one of its most prolific and prominent DJs, musicians and label managers. He is regularly booked to play abroad, and balances a busy musical life alongside commitments to his day job and personal life (an issue explored in section

4.3.3). EDM social networks are global, and Bradley's regular travels outside the UK are evidence of the reach of electronic dance music's peer-networks. Annie Errez (mid-30s) stressed the importance, scale and sense of belonging she enjoys, as:

> DJing electronic music is an art form, and I think that anyone who does anything to do with that is an artist, or who contributes to it in some way, is contributing to actually what is a really massive art movement really. If you think about it, it's been going since the 80s, 90s. I mean, millions of people all over the world still follow it now that's a pretty huge movement and I feel like it's not recognised enough sometimes.

Alongside the benefits, participation in grassroots EDM social networks can be a source of problems, including internal disputes (over power, creative direction), disagreements about project management, and other structural tensions that are present in musicians' groups. Grassroots musicians' communities can be quite closed to outsiders, and have been described in the words of one participant as a "clique" because "they can be quite insular, and doors are not always open".[49] The Slovenian participant mentioned previously who build up close connections with well-established professionals explained that he used the experience gained to later form a collective of musicians. However, after only a couple of years they split for the euphemistic, "artistic and creative divergences". After they separated, he quickly formed a new group with the remaining members and together they rebranded to resemble the previous group identity, but with enough differences to not confuse audiences, and/or provoke conflict with those who left.

Similar disputes and tensions are reported in online musician communities and groups of musicians on social media platforms. Otis Farnhill, an 18-year-old producer from the North of England, is an active member of many Facebook groups for young music

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[49] In her analysis of US television and film production Christopherson (2008) identifies a similar structure, calling them "defensive exclusionary networks" (p.89). Moreover, it reflects the problems of "competitive individualism and status competition through music" (Hesmondhalgh, 2013b, pp.48-53).

producers. During the interview he described one of the groups he is part of and its members' general behaviour as mostly benign and positive. According to Farnhill, the group offers a (largely) supportive environment where members comment on each other's work, give feedback, and maintain an overall collegial attitude. However, evidence from his interview and fieldwork observations of the group (posts and comments online) revealed some members undermining the efforts of others by writing detrimental and non-constructive comments, comparable to other forms of online trolling. Farnhill described the problem within that online community as:

> there are rules, but the group is fairly big, there's 27,000 members now and there's about 2 admins, so it's really hard to keep up with that. They've recently put a bit of a foot down on that, which is nice, but yeah, you know. It's nothing worth getting upset over, but if posting something and someone just slates it straightaway, that's kind of… it obviously puts you down because you've put so many hours into this and that.

This section has investigated the motivations of grassroots EDM musicians to engage with musical activities, and has explored the different ways casual and aspiring professional musicians are motivated by intrinsic and extrinsic drives. We now turn our attention to how musicians' activities are affected by the conditions they operate under as contemporary cultural producers.

4.3 Production Conditions: Work, Revenue, and Success

The analysis of production conditions is informed by the recognition that grassroots EDM musicians' musical practices are a form of "labour of love", shaped by the conflation of musical work and leisure. The conflation of work and play for grassroots EDM musicians is intensified via digital technologies, such as networked computers and online platforms that lower entry-level barriers for production. The implication that greater access to technologies contributes to democratising cultural production is a defining characteristic of what media scholars call *participatory cultures* (Jenkins et al., 2009). At the very core of participatory cultures are five ideas, summarised by Jenkins et al. (2009) as: "relatively low barriers to artistic expression"; "strong support for creating and sharing creations with others"; "some type of informal mentorship whereby what is known by the most experienced is passed along to novices";

"members who believe that their contributions matter"; and "members who feel some degree of social connection with one another" (pp.5-6). While these benefits are present to some degree, celebratory accounts of participatory cultures have been much criticised.[50] Moreover, such accounts have arguably contributed to reinforcing popular notions that, in the words of Burgess and Green, "raw talent combined with digital distribution can convert directly to legitimate success and media fame" (2009, p.21). Negative aspects of digital technologies and participatory cultures are often overlooked in celebratory discourses, and the conditions under which cultural producers operate reveal a much more complex setting that can limit and undermine potential benefits.

The conditions under which grassroots musicians operate as cultural producers are important throughout the full casual-professional spectrum because musical practices are shaped by the availability of resources (musical instruments, media infrastructure, time, money) as well as musicians' various income-generating activities. Working conditions are also significant because in the realm of non-professional cultural producer, the balance of work and play influences the quality of their personal, professional, and artistic lives. Historically, cultural production has relied on the complex mixture of artistic and income-generating activity, material resources, and time. In the words of Howard Becker (2008):

> making art works takes time, and making the equipment and materials takes time, too. That time has to be diverted from other activities. Artists ordinarily make time and equipment available for themselves by raising money in one way or another and using the money to buy what they need. They usually, though not always, raise money by distributing their works to audiences in return for some form of payment. Of course, some societies, and some art activities, do not operate within a money economy. Instead, a central government agency may allocate resources for art projects. In

[50] See the issue of the journal Cultural Studies edited by Hay and Couldry (2011), and *The Participatory Cultures Handbook* edited by Delwiche and Henderson (2012) for in-depth criticism.

> another kind of society, people who produce art may barter their work for what they need, or may produce work in the time available to them after they have met their other obligations (p.3).

Becker emphasises the wide range of activities artists engage in, and in the world of EDM, Reitsamer (2011) argues that being a DJ requires more than playing music in public – their practices include “a hybrid of inspired musician, compelling performer, marketing genius and business strategist” (p.28). EDM musicians are involved in “making music on computers, releasing records, marketing themselves through the media, organising club nights and running record labels” (Reitsamer, 2011, p.28). In doing so, Reitsamer suggests that EDM musicians embrace the ideals of entrepreneurship in cultural production in ways that reflect the:

> neoliberal economic ideal of an autonomous cultural entrepreneur, combining self-organisation and self-marketing with unregulated labour and gendered constructions of artistic identity (2011, p.28).

In this respect, even though digital communication technologies facilitate some musicians’ practices – notably the creation of music, (self)publication and circulation, and sociability – it remains difficult for musicians to convert online music-related activities into financial rewards and a sustainable career. Moreover, musicians’ adoption of large-scale commercial online platforms has contributed to further driving structural inequalities found in cultural labour at large: low pay; overwork; poor work-life balance; gender imbalance in opportunities; and a large reserve of skilled underpaid workers and talent pool. Ultimately, production and working conditions, as well as the rewarding mechanisms for grassroots musicians mirror *informal* and *gig* economies. Writing about informal economy and media distribution, Lobato (2013) explains that “formality refers to the degree to which industries are regulated, measured, and governed by state and corporate institutions. Informal distributors are those which operate outside this sphere, or in partial articulation with it” (p.4). The vast majority of grassroots EDM activities occur closer to the informal economy Lobato (2012) refers to, and is informed by the entrepreneurial attitudes Reitsamer (2011) describes.

As argued in section 2.2.1, the working conditions in creative labour foster high levels of precarious work, which includes competitive individualism, financial insecurity,

and restrictive sociality (networked sociality). In spite of some potential gains and improvements – namely greater worker engagement and autonomy alongside creative expression – Hesmondhalgh and Baker (2011) argue that the negative aspects of creative labour shape what they see as "bad work", defined as work performed under the control or dependence on others, boredom, isolation, low self-esteem or shame, frustrated self-realisation, overwork, and risk (p.36). Moreover, bad work results in "(a) *inferior* goods and services, and (b) *products that diminish the well-being of others* in society – or even harm them" (2011, p.36). For grassroots EDM musicians this already negative scenario is pushed further by: (1) the increased commercial drive of UGC and SM platforms to monetise user activity; (2) the increased levels of concentration of power and resources by online platforms; (3) the need to balance resources from their personal life and work to support musical activity; and (4) the association of (unpaid) work as exposure. With these working conditions as a backdrop, we now turn our attention to the production conditions of *grassroots* EDM musicians, and begin with the currencies in the grassroots worlds of EDM.

4.3.1 Currencies in Grassroots EDM: (Unpaid) Musical Activity and Exposure

The vast majority of music-related activities performed by grassroots EDM musicians are unpaid. Among casual musicians, being unpaid for musical activities is not a contentious issue as there is a consensus that their musical activities are largely driven by leisure and pleasure, and as such most of them expect little to no financial compensation. Moreover, unpaid work lowers costs for promoters, managers, labels, venue owners, as well as online platforms (including UGC and social media), which in turn opens up more opportunities for grassroots musicians to engage as active cultural producers. The point is illustrated in Pete Johnston's (early-30s) views about online remixing competitions. In these competitions, online platforms (such as Indaba.com) and record labels usually offer contestants high-quality musical material to remix, and the winner is awarded prizes, which typically include material rewards (money or goods), exposure to audiences (remixes released by a label, online promotion, unpaid live performances), or a combination of both (paid live

performances, royalties).[51] As a casual DJ, Johnston is optimistic about these contests and what they offer to contestants. When asked about musicians' work being unpaid for, he explained that:

> I can see how someone might think it's unpaid labour, but it's not really labour, it's a passion, it's a labour of love. People aren't doing it to provide someone else with something for their gain, they are doing it because they enjoy it, and because they want to showcase their talent and test their skills. It's the same with big companies; big corporations always screw over the little man, that's one way of looking at it. But I disagree, it's like giving someone ingredients and saying, "make whatever you want out of that, and then we're going to eat it", and if you weren't bothered about cooking you wouldn't want to do it. But if you're a chef, and food is your thing, then you're going to have an incredible time. I think it's exactly the same sort of analogy as that. It's as if… they're not getting forced to do it you know? It's like, "if you want to do it, take it, if you don't, don't". So there's no complaint there.

As a casual musician, Johnston is uncritical about the kind of working arrangements offered by commercial online remixing contests, and he rightly mentions the benefits grassroots musicians enjoy from participating in these competitions: pleasure, creative expression, exposure to audiences, learning and the chance to improve their musical skills (as discussed in section 4.2). Another participant – a young aspiring professional – commented on the silver-lining of losing the contest as:

> even if I don't win the contest I still get to keep my remix and play it. It's really cool because I've had people recognise the original track and artists,

[51] Online remixing competitions have been largely overlooked in music studies. See Jarvenpaa and Lang (2011) for a management studies perspective. With regards to creative practices, see Michielse (2013) for an investigation of non-commercial online remixing platform CCMixter.org, and Michielse and Partti (2015) for a commercial contest (Indaba.com).

> but not the remix, so when they ask me what's the track I say that it's *my* remix of so-and-so artist.

In praising the benefits of online remixing contexts neither participant addressed any of the problems associated with the underlying work conditions in online competitions. In a critical assessment of amateur economies, Kennedy (2013) writes about speculative work, competitions, and movements against spec-work. She argues that "competitions devalue design; they offer unfair compensation; they can result in problematic lawsuits; they employ minors; and they lead to a host of unethical practices, by clients, competition hosts and designers" (2013, p.229). The same problems characterise commercial online remix contests, and Karpetz (2014) criticizes them for exploiting "large reservoirs of free labour" (p.35) offered by a high number of musicians who "seem to generally revel in the opportunity to create for the opportunity for exposure and a chance at fame" (p.36).[52] In its commercial format, the incentives offered by online remixing contests favour musicians interested in learning, practising skills, and exposure.

For serious and aspiring professionals unpaid work generates a number of problems. With regards to online remixing contests, Karpetz (2014) argues that alongside unpaid work these contests foster "networks of competition, where creatives and their audiences are asked to engage with these platforms and their partners" (p.36). More importantly for the analysis of the currencies in grassroots EDM is Karpetz's suggestion that musicians have largely rationalised competitions as a positive activity (2014, p.36), thus minimising (or overlooking) negative aspects associated with unpaid work (or free labour). Moreover, unpaid work is ambivalent for serious and aspiring professionals for at least three other reasons. First, aspiring professionals must spend considerable amounts of resources (time and money) in their musical activities, and these resources are often obtained at the expense of, and subsidised by,

[52] Alternatives to commercially-driven remix competitions often use Creative Commons licenses and focus on immaterial rewards such as exposure, community building and mutual support. See Michielse (2013).

other income-generating activities. Second, unpaid work puts aspiring professional musicians with less access to resources at greater disadvantage in relation to those who have time and can afford to fund their musical activities via other sources of income – further increasing inequalities in cultural production at the grassroots level. And third, because grassroots musicians at large are less likely to be paid for musical activity, unpaid work lowers working standards and expectations for aspiring professionals, with negative implications for their livelihood and reputation. In the following quote aspiring professional Matjaz 'Aneuria' Zivko (mid-30s) comments on how unpaid work affects reputations:

> I'm a little idyllic about the money issue. I would like it to not be a problem, at all, because I have a lot of friends that are super nice musicians and they have no money but they are like working a lot on different projects and all the projects are "wow" but still, they cannot live out of it. But they are, for me they are, really professional artists, really special ones, they deliver, they are visionaries and stuff. So they are making new things, making old things in a different way, creative things, but they can't live from it.

Another Slovenian participant, who at the time of the interview was struggling to make a living from DJing, commented that he was planning a career change. He explained the financial dilemmas of DJing as:

> I have to spend 200 euros for two hours of set. Even if I get 80 to play, then it doesn't make sense. I mean, it was OK when I had a job or something, but when I started just to almost live out of it, it didn't make sense. And then, I'm really fond of records, but I can't buy them anymore. I'm really sad about it… but yeah, that's how it is now.

It is true that records can be played more than once, but having the latest, rarest, and most obscure "good" records is not only a signifier of cultural capital and prestige, it is also an expensive requirement with a relatively short shelf-life in the ever-changing underground world of minimal techno he inhabits. Bernardo 'Bera' (late-30s), another aspiring professional techno DJ, works as a bartender and estimates he spends "a lot on records, anywhere from 400 to, in a high estimate, maybe more than a thousand euros annually". Moreover, grassroots EDM musicians must also often account for other expenses (such as travel and refreshments), and resources (like time away from

family, friends and work). For aspiring professional EDM producers the costs required can be significantly higher, as licenses for software and samples, as well as hardware for music-making (synthesizers, drum machines, computers) easily surpasses those of recorded music (vinyl records, digital audio files).

What is arguably most remarkable about unpaid work at the grassroots level (as illustrated in the aforementioned quotes and attested to through observation) is the level with which unpaid work and the potentially serious negative consequences for aspiring professionals have been internalised. One veteran DJ and promoter from Leeds defended unpaid work as a valuable source of exposure and a traditional "rite of passage" that he justifies is still important because "we all went through back in the day". As Karpetz (2014) argues, unpaid work contributes to increasing "networks of competition" (p.35), which also extend to increasing competitive individualism.[53] In the attention economy of the grassroots world of EDM, *exposure* to audiences is very valuable and operates as a currency. Chapter 6 discusses why and how grassroots EDM musicians have adopted promotional strategies when circulating music online. Here I discuss the value of exposure as a form of currency among grassroots musicians.

Exposure to potential audiences, peers, and work opportunities (including booking agents, labels, advertisers) is used as trading currency in the world of grassroots world of EDM. Promoters, managers, booking agents, venue owners, and record labels (particularly digital-only labels) offer exposure in exchange for musicians' work.

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[53] Unpaid work by grassroots EDM musicians can also be understood as a form of *shadow work,* defined by Illich (1981) as a "complement to wage labour" as "it includes the stress of forced consumption, the tedious and regimented surrender to therapists, compliance with bureaucrats, the preparation for work to which one is compelled" (p.100). In the case of grassroots musicians, music-related shadow work is problematic because the time invested in unpaid work is unavailable for wage labour activities.

Commenting on his first release on a digital-only label, aspiring professional musician Fletcher (late-20s) said,

> I just got a message from them on SoundCloud one day saying "we've come across this track on your page, we want it for our various artists release that we're doing in a couple of months" kinda thing. This is a label that I'd, I mean, at the time I'd always been aiming for, and *they* got just in touch with me. I mean, I have no idea how they came across the track, whether someone pointed it, or they found me.

In exchange for releasing his track, Fletcher commented:

> I didn't get anything from them, but I got very good publicity.

The exchange of unpaid work for exposure is a bartering tool between musicians and labels, promoters and venue owners. Furthermore, it is traded among musicians themselves. In the following excerpt, a well-established DJ explains his booking strategy,

> DJ: I've played for free a lot in my life [laughs]. But these trips that I do outside [the city], most of them are paid for.
>
> Interviewer: How do you negotiate them?
>
> DJ: Well, because I have the residency here in [a local club]. It works as some sort of exchange you know? So I'm invited to play at somebody's night at a club and I do the same for the person here. You scratch my back, I'll scratch your back.

This kind of exchange is commonplace, and the participant rightly notes its benefits for musicians: bartering bookings helps to build the much-needed social networks that structure grassroots activities; lowers costs of events; fosters collaboration between musicians and promoters; and extends exposure of musicians to audiences. However, this kind of favour exchange is riddled with complications. Firstly, bartering bookings is rarely conducted with transparency, leaving the weaker side in a vulnerable and weaker negotiating position. Local grassroots musicians frequently complained that refusing unfavourable deals by unethical promoters often leads to fewer future opportunities (and a bad reputation among them). Moreover, the terms offered to

grassroots musicians are disproportionately worse than those presented to guest DJs and headliners (frequently from outside local circles). Secondly, non-transparent bartering hosts a number of potential conflicts of interest between the parties involved in the transaction, including avoiding third-parties' fees (from booking agents and agencies, and potentially taxes), and facilitates unaccountable use of resources. And thirdly, the combination can have detrimental effects on musicians' sociality and social structures, with accusations of wrongdoing, backstabbing, and other unethical practices being rife in highly individualistic competitive environments in grassroots EDM, thus potentially eroding the collective benefits offered by exchanging favours.

To summarise, in the world of grassroots EDM, musical activity is largely unpaid, and musicians are often offered exposure as a form of reward. Exposure is very valuable for grassroots musicians, but trading-off financial rewards for visibility comes with a number of drawbacks, particularly for musicians who rely on material rewards to support their musical activities. Highlighting material rewards and exposure as currencies is important to understand the dynamics of grassroots musical production and how musicians balance musical practices with activities needed to earn a living – both music- and non-music-related.

4.3.2 Revenue: Online Platforms, Live Gigs, and Day Jobs

The majority of participants earn a living with wages earned from day jobs, which can include music-related work, but more often than not consists of non-music-related activities. In general, music-related revenue constitutes a small(er) proportion of their total income, and even though a few veteran musicians claimed to have had earned a living from music at one point in the past, none were doing so at the time of the interview. Out of all the music-related revenue declared by participants, live performances are the most significant, with making and circulating recorded music online providing minimal contributions. The (in)balance between revenue from live performances and recorded music is a result of the low earnings from online circulation of music, as well as the low volume of sales by independent EDM record labels.

For musicians on the professional side of the spectrum, financial revenue from online activities such as circulating and selling recorded music is negligible. One of the few

participants (mid-30s) to earn a living as a musician explained how he managed to make a profit from his online musical activities through (self)promotion. Early in his career he attracted the attention of independent labels, mostly through his SoundCloud profile (by remixing famous artists), and released a handful of tracks on independent labels. His releases made him no money, but built his reputation to a point where:

> now that I have my own studio all my work comes from the Internet, and even those who come over to the studio and listen here ask me "hey can you get me your Facebook?" and through Facebook they schedule another visit and get a price estimate with me. If I did not have Facebook or a SoundCloud I think I'd have only one job a year, now I get about one every month. And I also teach music production and sound engineering, which is good too.

After failing to monetise directly from publishing and selling recorded music, he adapted his strategy to emphasise exposure via online showcases and networking with peers to increase his client base. Turning a profit from the sale of recorded music online is an even greater challenge for aspiring professional musicians. Tom 'Leemajik' (late-20s) explained that at its best, his earnings from the sales of recorded music come from the few and sparse donations he receives from fans who buy his music from Bandcamp – an online platform that caters for independent musicians and labels, offering favourable percentages in direct sales to fans. He explained that:

> Bandcamp actually broke the barrier between the guys who want to pay something to me, and me to earn some money. And I actually earned some money. It was not much, but it was like, the total amount was 50 euros, that's it, and that's cool. I bought myself new sneakers the next day [laughs].

Tom paid for sneakers, not rent or utilities, or, as other participants mentioned, child support and student loans. Alongside Bandcamp, Tom also has profiles on SoundCloud and YouTube, but these are oriented towards exposure rather than profit. In fairness, Tom is not a music entrepreneur driven by profit, and given his commitments with a full-time job as a sound engineer, he understandably sees small financial returns from selling his music online. However, even the most entrepreneurial and commercially minded participants claimed difficulty turning a profit from publishing and circulating recorded music online. Take the case the veteran DJ, producer, and label owner Al Bradley (early-40), who has an extensive

catalogue on specialised EDM online music retailers (like Beatport, Juno, Bandcamp, Discogs) as well as several profiles on UGC and streaming platforms (YouTube, SoundCloud, Spotify). In Bradley's accounting, money and exposure are interchangeable, and in the past year he has seen an increase in revenue from online platforms:

> YouTube in particular has been the one who shot up in the last 12 months now. Whether that's just to do with the fact that there was nothing before and now it's gone up, so it's comparative.

The fact that up until 2016 his label had earned very little through YouTube illustrates the difficulties independent labels face in monetising from content uploaded to the platform.[54] Bradley goes to considerable efforts to make money from content uploaded to YouTube, and he personally monitors unauthorised uploads of content from his label:

> because anybody can put anything up on YouTube, if you have somebody kind of monitoring that stuff and going, "ok, that's a track on my label" for example, and you've put that up: that's fine if you want to keep it there, but you need to tag the rights owners.

Bradley's troubles in monitoring unauthorised uploads is similar to the problem facing major labels and rights owners of popular content issuing take-down notices, though the magnitude of the problem is clearly different. In the case of UGC platforms like YouTube grassroots musicians struggle with the high volume of traffic needed to turn

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[54] The upturn in revenue points to a change in the distribution of money gained from advertising, but the impact of the most recent update to YouTube's Partner Program (YouTube, 2017) terms and conditions has threatened this revenue stream. Moreover, small labels and independent producers have little negotiating power and must accept updates in policy or run the risk of losing exposure on the platform, which MIDiA Resarch (2017) states is one of the most important promotional platforms for artists and labels (p.25).

a profit.[55] Vid Vai, an aspiring professional DJ and producer in his mid 20s, talked about the challenges of monetising from online platforms:

> at the moment I don't think it's such a big issue for me because I have a very small audience, so maybe if there was a huge audience that maybe I could profit from, maybe I would take it into consideration. But I doubt it. I don't think that I'll start making money on this kind of thing, YouTube videos or anything like YouTubers do. I think my general means of getting money is through the music, and mostly gigs. So I think I'll just keep it that way.

Vai is clearly not interested in shaping his music and artistic identity to suit the large audiences drawn to famous YouTubers, and he has decided to focus on music rather than audio-visual production. Additionally, in his view being a musician is markedly different than making videos for YouTube, and refocusing his creative efforts and resources would be counterproductive to musical ambitions. Lobato (2016) argues that the development of YouTube in the past decade shows how the rise of disruptive technologies like UGC platforms fostered new production cultures alongside potentially conflicting commercial imperatives for grassroots EDM musicians. However, YouTube today is "an ecology of professional services as well as production; a space that requires not just talent and popularity but also third-party expertise as a prerequisite to success" (p.358). Thus, while some grassroots musicians have been able to earn money by circulating content via UGC platforms, their collective experience suggests the amounts are very small. In fact, even world famous musicians struggle to earn money from UGC and streaming platforms.[56]

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[55] It is notoriously difficult to know exactly how much Google (owner of YouTube) pays to content producers through AdSense (the advertising branch); the platform does not publicise the rate of cost per impression (the amount paid in relation to the number of times advertising is seen), and total amounts vary according to each channel, its popularity, the type of ads served, and viewer location. Moreover, according to UGC marketing specialist Yeoman (2016), payment rates can vary anywhere from US$0.5 to US$10 per thousand views. Sponsorships and other deals are available with third parties.

[56] The problem is compounded by the fact that online music streaming provides a growing source of income for the music industry (IFPI, 2016) and in 2017 digital revenue accounted for more than half of the total revenue (MIDiA, 2017). Moreover, the distribution of

The distribution of revenue from digital sources, including streaming platforms, follows the music industry's "winner-takes-all" system, which is concentrated to a small number of key players. Visual data analyst and journalist David McCandless (2015) has published an analysis of the estimated revenue from several online platforms. He argues that, in order to earn the equivalent of a monthly minimum wage in the US ($1,472 at the time), it would take a musician 2.1 million plays on YouTube, 335,000 on Spotify, and 77,000 on Napster (detailed estimates about online platforms' payments to musicians are in Appendix 5). In a 2014 tweet that gained traction in the specialised music media (Gensler, 2014; Resnikoff, 2014), the musician Bette Midler wrote:

Figure 3. Bette Midler tweet (Midler, 2014)

Music business analyst Paul Resnikoff is a strong critic of the business model of UGC and streaming platforms like YouTube and Spotify as contributors in musicians' revenue streams. He notes that problems are not limited to the small amounts paid to musicians, but also to the disproportionately high salaries platforms pay their employees. His analysis of Spotify's annual report indicates that "the average employee, from receptionist to CEO, earns an average salary of €151,180, or $168,747 in current exchange rates" (Resnikoff, 2016).

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earnings follows contractual agreements between musicians and rights owners, with musicians often receiving a small(er) share.

Proponents of the "long-tail" argument, such as Anderson (2006), suggest that patterns of cultural consumption and the business model of the technology sector are moving away from focused efforts on a few successful hits towards niche products and markets. Online retailers, he argues, offer "infinite shelf space" and more options for consumers. The implication of the long-tail model for independent musicians is that it has the potential to open up revenue streams, in part because production costs are lower, and online platforms can connect producers with a consumer base large enough to sustain steady income. Some participants have praised retail platforms such as Bandcamp for an increase in revenue, but the amounts earned by participants are still relatively small, and exposure has been limited to few niche audiences. In the words of a participant with serious commercial aspirations:

> Bandcamp is really nice, I really like this donation thing, it's perfect cause a lot of people, like I said, don't have money and you can just download this for free. They can get your email, if you don't get money you give them your email, they can always send you their stuff and they promote this in that way.

Ultimately, the question of whether Bandcamp, or other similar platforms, can provide a viable model for larger numbers of grassroots musicians interested in selling recorded music online is still open. However, research by Elberse (2008) strongly suggests the long-tail model is a myth, and while the diversity of media goods has clearly increased:

> the tail is likely to be extremely flat and populated by titles that are mostly a diversion for consumers whose appetite for true blockbusters continues to grow. It is therefore highly disputable that much money can be made in the tail (p.9).

Elberse's arguments are compelling in the context of popular music, where big artists from major record labels dominate sales and drive profits, reiterating the winner-take-all model, thus hampering grassroots musicians' efforts to make a profit by selling music online. The growth of Bandcamp, its user base, and the increasing volume of sales – a 73% rise in 2017, totalling US$70 million paid directly to artists (Stutz, 2018) – are encouraging signs for grassroots musicians as the platform builds a reputation based on respect with its users, and favourable terms and conditions in its sales deals.

Yet, it is still negligible when compared with the US$7.8 billion total digital revenue from music in 2016 (58% of which from streaming platforms like Spotify) (IFPI, 2017).

Income from live performances is a major source of revenue for well-established musicians (Sanchez, 2017), and the music industry (The Creative Industries, 2015). The same is the case in the grassroots world of EDM, and booking agents are attracted by musicians with large exposure on online platforms (largely social media and UGC). However, participants on the professional side of the spectrum explained that they must be careful when negotiating booking fees because, as argued previously, they have to balance financial rewards with potential exposure.

The experiences of grassroots musicians reflect the growth in revenue from live performance, but in a limited way. Aspiring professional DJ and producer Alex Brown (mid-20s) explained that he "made a few hundred quid off DJ gigs and stuff, but other than that no, I haven't made any money." Aspiring professional Gabrielle Cooke (early-20) described the challenges of the grassroots EDM live music market as she tries to book gigs around Leeds. Navigating the UK market is:

> difficult, because I was talking to [my mentor], and he said "do you know what kind of route you want to go down? Do you want to go down the student gigs, the big club stuff, or do you want to go down the smaller cooler places? Because the money is in the student big clubs, but you have a lot more freedom in what you want to play in the cooler places". It's a difficult one, isn't? So you have to balance the two if you want to make a career so you can fund it and still be able to play what you want.

Her portrayal of the club landscape reflects well Bourdieu's fields of cultural production (discussed in section 2.2.3) and highlights the relationship between financial and cultural capital in regards to artistic autonomy.

As well as having to choose carefully from the alternatives available, the efforts of musicians like Gabrielle Cooke to make money from live performances are also restricted by the closing of music venues in the UK. It is estimated that by 2015, London alone had lost 40% of its music venues (Garvan, 2015). Fabric, one of London's most reputable EDM clubs and a worldwide icon in clubbing, was

temporarily closed in 2016, and only reopened after an intense campaign by EDM fans, musicians, and insiders. The threat of closure is UK-wide (Garvan, 2015), and is greater for smaller venues – the natural habitat of live grassroots musical performances. In Leeds, The Cockpit closed its doors in 2014, and at the time of fieldwork (late 2015) Ljubljana's largest EDM club – K4 – was also shut.[57] The closure of small venues hits grassroots musicians and local music communities hard because these places are, in the words of music journalist Garvan (2015), "where many of your favourite bands get their first real experience of playing live", "they are also crucial to all the other people who work in live music, from lighting to sound, to people like [promoters] who put the gigs on". Overall, revenue from live music, and music-related activity in general, is (still) concentrated with the top musicians, and more often than not grassroots EDM musicians rely on revenue from day jobs.

Participants have ambivalent relationships with their day jobs, and these vary according to their musical ambitions, personalities, life priorities, and the kind of day job (music- or non-music-related). For example, ambitious aspiring professional musicians are more likely to consider non-music-related jobs as a distraction from their goals. However, as Janus 'Yanoosh' Luznar (mid-30s) explained, non-musical day jobs can provide benefits: his time as a construction worker helped him "clear his mind" and increased his creative drive in the studio. Moreover, better paying day jobs also provide a level of financial security that is uncommon in cultural work, particularly among low-rank workers. Participants' non-music-related jobs include accountancy, food and hospitality (bartending, cooking), public sector (higher education), retail and sales representatives, book publishing, tech sector (information technology, programming, data management), visual design, marketing, and fitness.

Music-related day jobs can also be ambiguous because working with music during the day, in the words of Tom 'Leemajik' (late-20s), working full-time in a studio can "drain creativity" and "saturate the ear". On the positive side, these jobs facilitate

[57] The club has since reopened (Klub K4, 2017)

building professional networks and encourage learning new skills and refining old ones. The very few participants who held music-related full-time jobs were in the areas of live audio mixing, sound engineering for television, and small business owner (production studio). Regardless of the nature of the job, all participants with day jobs at the time of fieldwork were subsidising their personal musical projects with revenue from their jobs.

By definition, aspiring professional musicians aim to earn a living from music-related activities, but the pathways for financial independence via music are complicated. Richard Fletcher, an aspiring professional in his late 20s, explained the benefits of having a music-related job:

> when I moved back to Leeds I realised that a studio job would be very difficult to obtain, so I got into live sound, and that was when I really settled into making my own music because I had enough money to buy the new pieces of gear that I wanted, and I was working freelance, so I could have the time to really settle in to make music on a daily basis. And that's when it started really taking off for me in terms of my music.

In his pursuit of a music career more closely aligned with his artistic ambitions Fletcher moved to Berlin in 2016, and took a day job in the food industry to support himself through the transition, thus losing the advantages he enjoyed from his previous music-related job (such as networking, musical skills) but the flexible working hours in the kitchen allowed time for music (including DJing and studio work). The case of Slovenian musician Borka is another example of how complicated it can be to manage music-related work with musical production. In his mid 30s, he earns a living from a combination of several different music-related activities. Thus, as well as DJing:

> now I'm doing more and more journalistic work – I work with one printed weekly and one online music magazine – and then on student radio, second channel national radio where I have one show and I also select music for the afternoon, and then I also do music for this more politics based show on television, ahm… and then [chuckles] I do some soundtracks for some documentaries, ahm… a little bit of music production, we run a really small

> label with a friend of mine, so now it's all sort of like a 100 different directions which are kinda related, but at the same time are different things.

Borka's multiple revenue streams highlight the flexible and entrepreneurial qualities of his work, and illustrate Reitsamer's claims that DIY EDM musicians rely on "new patterns of self-employment" (2011, p.40) that "share numerous characteristics with the *entrepreneurial self*" and "the *new autonomy*" (p.30, original emphasis). But while multiple sources of income provide Borka with financial independence, very little of his time is spent actually *making* music: when asked what he would like to change in his professional life, he replied: "more time to make music. And yeah, I would love to tour". He is one of the few participants who earns a living with music-related work, but as his case illustrates, precarious conditions of music-related work can be a barrier for musicians' personal artistic ambitions.

Non-music-related day jobs require considerable amounts of time from participants, but it provides them with less precarious working conditions and a more reliable source of income. Therein lies a dilemma for aspiring professionals: on the one hand, using time that could be dedicated for musical activities in non-music-related day jobs reduces their chances of building a career; on the other hand, a steady source of revenue provides some form of financial security that can sustain long-term musical activity. This is the situation Janus 'Yanoosh' Luznar (mid-30s) lived through; during his early 20s, he split his time working with music and in construction jobs, and physical labour offered more than just steady income:

> that was the time that I've made most of my [music]. It was really the most interesting time. The most interesting music came then, because I was outside all day long, I was hanging there from houses and working physically, and I felt alive! So when I came to my studio I really felt alive! I had this enormous inspiration that I couldn't get before in studio jobs.

The rewards from physical labour include inspiration for music-making (as discussed in section 4.2.1), but also financial stability to invest resources in supporting his musical ambitions – while working in construction he saved enough to set up a home studio which included an Italian-made, vintage 1982 Cruise polyphonic analogue synthesizer manufactured by Siel, which he had recently sold to pay for expenses related to the birth of his first child. Annie Errez, a DJ and producer in her mid-30s,

summarises well the advantages and dilemmas of subsidising her musical career with the money she earns in the publishing business. Emphasising the changes in life priorities, she explained that:

> I probably would say that I always wanted to do music as a career, but the older I've gotten the more I can see how it's very unstable. I mean, think about money, pay your rent, or mortgage, or for people who have a family, that's a factor that comes in, so these things must come into play. When you're young you don't care about that. So I guess I've kind of been a little scared to really take that step [towards a career in music], because you need to put a lot of time in that. And I think that equals a part-time job, or, no, a full-time job and just really focus on it. It would be doable but I don't know if… ahm, that's quite scary, to lose that kind of… you know, to just lose that money. You'd just lose that security, so that's quite scary.

Errez's comments about precarious working conditions for musicians reflect those of cultural producers in other sectors of the media industries (as discussed in section 2.2.1). Moreover, Errez's reluctance to give up the security she enjoy through her day job are catalysed by the UK's policies of austerity, the on-going repercussions of the 2008 financial crisis, overall precarious working conditions (zero-hour contracts, gig economy), and economic uncertainties associated with the UK's vote to leave the European Union. Furthermore, her ambivalence about both a music career and a day job is typical of veteran musicians deeply invested in the world of EDM, an issue examined in the next section.

To summarise, the most significant revenue streams for grassroots musicians are day jobs, and, to a much lesser extent live gigs. Revenue from the circulation and sales of recorded music online is negligible, but the platforms offer musicians exposure to audiences, which can be converted into further contacts and more opportunities for live performances. Income from day jobs is fundamental, but grassroots musicians face a dilemma: on the one hand, music-related day jobs are the aim of many aspiring professionals, but these jobs can be unreliable, precarious, and low paid. On the other, non-music-related day jobs offer them more security and a more reliable income, but they come at the expense of time that could be dedicated to music. Thus, considering the importance of revenue streams to grassroots musicians' material wellbeing, how does the balance of work and musical activities affect their lives?

4.3.3 Making It and 'Making It': Balancing Music, Work, and Life

Serious and aspiring professional musicians dedicate large amounts of time and resources to musical activities, and balancing them with the commitments of work and life can be challenging. Imbalance between day jobs, music practices, and life commitments is often a source of *frustration*, *anxiety*, and *suffering*. Veterans and musicians on the professional side of the spectrum commented on the negative impacts their musical activities have had in their lives, including personal and professional aspects. Musical activity can negatively affect family life and extended social circles by increasing difficulties in establishing and maintaining relationships, particularly intimate ones. Annie Errez (mid-30s) reflected on the challenges of balancing day job, personal life, and the pursuit of a music career:

> it's quite hard. For a long time, I'd say up until about 2 years ago – especially while I was learning – I just didn't have a social life. I didn't see my friends, I kind of… not in a nasty way, but I just had to make this decision: I wanted to have time for this, see where I could go with it. So I didn't really do that much stuff with my friends. I had a boyfriend who was also doing the same thing so that was easier, but I don't think I would have been able to have a relationship if he didn't do it as well, because there would have been no time. So, it was like work and music, but the work really helped the music because it gave me the money to buy what I needed and to go to places, like if somebody offered me a gig or something, or some opportunity where I would have to pay for it, then I had that money there you know? Also, obviously buying records is expensive. So I'm not using what I make from music to live off at all, so it's… I don't worry about that now, you know? In that way it's been good, but for the social side I'm missing out on things.

Errez touches upon many of the issues examined in this chapter, including intrinsic and extrinsic motivations, music as labour of love, the ambivalence of passion, the balance of money and exposure, the importance of performing, and the use of revenue from day jobs to subsidise musical activities. Moreover she highlights the intricate connections and delicate balance between music, work, and personal life. Even though she has managed to balance the commitments of a day job alongside successful long-term musical activities, balancing them has taken a toll on her social life and personal relationships.

Balancing commitments can also have a negative effect on family life, and this issue is troubling for musicians raising children or planning to. Commenting about a range of negative effects his pursuit of a career in music has entailed, a Slovenian participant observed:

> I'm compromising all my life [laughs]. For example, relationships I'm compromising a lot. Even my job, my day job, I know I could be much more successful you know. Now and in the past… I even had a conversation with the music people I work with and my girlfriend, because we're also thinking about having a baby now. So I said to myself and the people I'm involved, "this is my last serious try". I mean, I'm gonna make music my whole life, because again, I need it, because I'm gonna go mad mad if I don't. So I said, "I'll give us 3 years, it if doesn't really evolve in 3 years, then let's say we drop the idea and let's be happy, play music together and just live our lives", and you know, don't really give a damn anymore if we're gonna make it or not.

The quote shows high levels of uncertainty, anxiety, and wavering aspiration to a career as the degree of commitment required affects personal and working lives, potentially compromising their future wellbeing and that of their families.

Uncertainty and precariousness are defining characteristics of aspiring professionals throughout genres of popular music. In her work about musicians in rock, Sara Cohen (1991) writes that their "life was a series of successes and failures, periods of optimism followed by periods of depression. The longer a band struggled and the older its members got, the more harshly the failures were felt" (p.4). Disappointment, frustration, anxiety, and other negative experiences litter the pathways to a career in music. The uncertainty is illustrated in the following quote from an aspiring professional DJ and producer in his early 20s:

> I don't like to make very big plans because I don't like to be disappointed if that won't happen, because there are a lot of elements in this chain that I don't have an impact on, like for example the labels and everything. It's really not up to me to influence them on how I want to do my own stuff.

Unfortunately these challenges are not exclusive to serious and aspiring professionals, they also afflict veteran EDM musicians, particularly those who carry unfulfilled ambitions, unresolved frustrations, and bitter past experiences.

Ageing is an important factor it how veteran musicians balance music, work, and personal life. Writing about punks and hippies in their 50s, Bennett (2013) argues that the literature emphasising music-making activities has "nurtured a particular perception of music's capacity for the inspiration of career paths", "thus, we are told, at is becomes increasingly clear to individuals that their youthful dreams of a life in music will not be realized, they gradually leave such dreams behind and opt for more 'conventional' careers" (p.95). Like the punk and hippie music fans in Bennett's study, veteran active EDM musicians must balance music, work, and life commitments while keeping music "at the core of individual lifestyle projects around which work and other elements of everyday life are strategically organized" (Bennett, 2013, p.95). The key word is *strategically*, and therein lays the difficulty in finding *balance*. In his late 30s, Bernardo 'Bera' balances his work as a bar manager with an active musical life, and his aspirations for a career as DJ are sustained with a mixture of hope, pragmatism, and stoicism. Talking about his desire to make a living from music, he narrows down his chances for success as:

> I would like to, one day, be playing at the right place to the right person at the right moment. This is something that Laurent Garnier [legendary French techno producer and DJ] has said and it fits perfectly. I hope this happens, let's see. But I'm not chasing this like crazy, no.

At the end of the interview with a veteran DJ in the UK, he explained the dilemmas in managing professional aspirations in the EDM labour market:

> I am interested in a career… but I'm not interested in… this is not so easy to explain. I'm not interested in playing in a big festival, because this would mean that I would play mostly for free and that I would lose lots of time, and patience. I'm not interested in playing in clubs in big cities because they pay shit. Crowds can be good here and there and anywhere. So I'm not like, "OK, I wanna do this whatever it takes". I'd love to play in nice clubs, mostly small clubs, but at the same time I know that lots of it is just like, a lot of time and patience – and I'm not 20 anymore, so I'm not pushing it. At

> the moment I'm doing pretty well, so… I don't know. I mean, yeah, this has changed, I mean, you're not that eager anymore, so… I mean, in a way this is my career, this is what I do, *and* I still have a regular job.

A closer look reveals the details of the challenges. First, the kind of musical activity available, illustrated here in the choices for live performances: more money, large exposure, and less artistic freedom in big venues opposed to low pay, less exposure, and more artistic freedom in smaller venues that require more effort to book. Second, the need to balance resources invested in musical activities (namely time and money) with the limitations of a regular job; resources invested in musical activities are redirected from elsewhere, and as another participant observed: "there is no such thing as *free* DJing, someone needs to put in the time and foot the bill". Third, the association of (older) age with professional ambition, and it is not uncommon for frustrated veteran musicians to downplay their ambitions and eagerness for career aspirations. This last issue is partly explained by changes in musicians' priorities as they grow older, as well as an effort to avoid stigmas associated with older age and youth culture.[58]

The difficulties of balancing music, work, and life as a musician are even greater for female musicians, and it reinforces inequalities in the world of grassroots EDM. Gender plays a considerable role, and grassroots female EDM musicians must manage general socially gendered expectations (such as motherhood and family care) within the male-centric culture of EDM – illustrated in the naturalisation of DJing as a masculine practice, which is learned and practiced in male-coded spaces (Gavanas and Reitsamer, 2013; Abtan, 2016). Navigating male-centric cultures is not easy, and Gabrielle Cooke (early-20s) explained how she deals with the benefits and problems

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[58] As a genre of popular music, EDM is closely associated with youth and youth cultures. In the case of grassroots EDM, the figure of the 'veteran DJ' has ambiguous connotations, which vary according to the perceived level of success achieved in the past: those who achieved considerable success in the past are frequently celebrated as inspirational figures, whereas those who did not often carry stigmas associated with failure, immaturity, and lack of competence.

she faces as a young female musician. She argued that much of the success she has experienced so far is:

> because I'm a girl. 100%. Everyone has said it, so… That has given the initial push, but then once I get these opportunities I just have to make the most of it and prove myself, and then I think that people have been a little bit surprised and they're like "oh, ok, she's actually good, not just a pretty face." People have actually said it. Like, all the DJs I've spoken to, they're like "oh, you're doing really well, you know", generally not in a negative way, just as an observation. But there's been a couple of people that have been like "oh you're getting all the work" as if that's the only reason. But at the end of the day I'm working really hard, putting new mixes out every month, I'm constantly learning, taking every opportunity.

Unfortunately, Cooke is not alone. Other female EDM musicians mentioned working harder on their musical skills and knowledge to compensate gendered expectations in EDM. The debates about physical appearance and desirability of female musicians help to unpack some of the most pressing challenges for female musicians as they balance music, work, and life commitments.

Female musicians are largely under-represented in positions of power in the world of EDM, which is reflected at the grassroots level. There are few(er) female musicians behind the decks and in music studios (Abtan, 2016), and "in order to survive in the dance music milieu […] women must continuously negotiate […] issues to do with their appearance and desirability" (Gadir, 2016, p.119). Desirability and invisibility go hand-in-hand, and the controversies about booking female DJs reveal the complexities these musicians must navigate in what remains a stubbornly sexist environment. When asked about booking policies, a veteran male musician lashed out at what he sees as strategies that overemphasise sexual appeal used by *female musicians* and *promoters* alike. He explained the problem:

> she may well be an excellent DJ, but [the image] overrides everything and you go, "ok, why was this person booked? Were they booked because their selling point is that they're a topless DJ and they can play in Ibiza in the sun? Or were they booked because they play good music?" And then you've got a crowd of, effectively guys who, frankly, don't care right? From a business point of view, a *purely* business point of view, the person who

> booked her to play this bar might say, if the bar is really busy, "I don't care how it sounds like".

His critique shows little appreciation for the dilemmas female musicians find themselves in as they must deal with the added complexities associated with sexist gatekeeping practices – a negative aspect male musicians are largely exempt from. He then commented on the treatment of techno DJ Nina Kraviz:

> there's an element of sexism which has happened to Nina Kraviz which is unfair actually. She's become successful because of her music, now the fact that she's an attractive woman, that shouldn't really matter and it's a shame that people have to reference that all the time.

Nina Kraviz's case is emblematic because the discussion about her achievements as a musician is frequently framed around issues regarding her physical appearance and gender. In 2013 she became the centre of a heated discussion in the world of EDM because of an interview she gave for Resident Advisor – a leading "online music magazine and community platform" (Resident Advisor, 2018) specialised in EDM and dance culture. The controversy was focused on a scene featured in a short documentary about Kraviz's success, in which she talks about the stresses and problems of being on tour while taking a bubble bath. The backlash from some of the most well-known names in the world of EDM was swift, and went viral on social media platforms.[59] In a blog post, legendary techno DJ Greg Wilson honed in on the core problem and rightly argued that:

> female DJs have always found themselves sexualised in a way that the men have never had to endure. This has warped people's perceptions of many a DJ who just happened to be female. The fact that they're described as a 'female DJ' in the first place muddies the waters, for the sex / physicality of the person has no bearing on their ability to do the job (2013).

[59] See Wilson (2013) for a summary of the comments and his full view.

As the cases of Kraviz and Cooke illustrate, the problems facing female musicians are widespread in the worlds of EDM, and issues associated with gender (expectations of gendered roles, sexism, desirability and invisibility, promotional strategies) complicate further what is an already difficult task of balancing music, work, and life.

To summarise, it is difficult for grassroots musicians to carve a career in the music business. Musicians must negotiate exposure and unpaid work, and the naturalisation of the two 'currencies' in the worlds of grassroots EDM is disadvantageous for musicians on the professional side of the spectrum. Working conditions for cultural producers remain precarious, uncertain, and unequal in opportunities, thus affecting the production conditions as musicians subsidise their musical activities with resources from their personal and professional lives. In this context, grassroots musicians have adapted to accommodate these changes as they balance resources, and in the process they have also (re)negotiated the meanings of success – as illustrated in the case of active veteran musicians who maintain long-term successful and sustainable musical practices through a difficult, yet possible balance between music, work, and life commitments.

4.4 Conclusions

In the examination of motivations I have shown why grassroots EDM musicians engage in musical activities, and highlighted the different experiences musicians across the casual-professional spectrum have. Grassroots musical activity is motivated by a wide range of benefits analysed through SDT's intrinsic and extrinsic framework (Ryan and Deci, 2000). The most common intrinsic motivation is a sense of love for music and musical activity, but in the case of serious and aspiring professionals the pleasurable experiences are marked by ambivalence – their passion for music entails enjoyment and self-sacrifice. For these musicians, music is deeply integrated into their identities and daily practices, thus contributing to their sense of being in the world. Moreover, the depth of music integration into participants' identities and everyday activities illustrates the complexities of grassroots musical activity – a labour of love – with important implications for musicians' emotional, personal, and in the case of aspiring professionals, material wellbeing.

The analysis of grassroots EDM musicians' extrinsic motivations examined their desires for peer-recognition and social relations through musical activities. I argued that participants throughout the casual-professional spectrum experience meaningful forms of sociality on both personal and collective levels. For casual musicians these forms of sociality were largely beneficial and implied fewer negative experiences than their serious and aspiring professional counterparts, who inhabit a competitive entrepreneurial individualistic environment. As individualistic entrepreneurs, grassroots musicians often find themselves in weak positions, having less power to negotiate conflicts, bargain for better opportunities, and navigate the social structures and groups that organise EDM musical activities. To compensate, many aspiring professional participants join networks who function as "defensive exclusionary networks" (Christopherson, 2008), and in the process distance themselves from others. Clearly not all musicians abide by these defensive networks and competitive social relations, but they operate in an environment marked by these networks and individualistic cultural entrepreneurship, which in the world of EDM is reinforced by the notion that, equipped with the right set of tools, skills, and talent, one individual can 'make it' alone.

A potential alternative to foster inclusion would be to reassess the roles extrinsic motivations play, and re-evaluate them as a system of virtues. Macintyre (1981) suggests that in such systems, virtues are "intimately related to each other" (p.155), operating on an individual and collective level, and require "the capacity to judge and to do the right thing in the right place at the right time in the right way" (p.150). The application of such system of virtues in grassroots EDM production would require musicians to reconsider exclusionary practices, open their closed social networks, and balance the needs of individuals with those of the wider group. These are difficult decisions to make under the conditions cultural workers find themselves in, with high levels of precarious work, long-hours, low pay, anxiety, and short-term contracts (as examined in section 2.2.1).

It is uncertain at best, and unlikely at worst, that such changes would impact larger structural problems in cultural production in the professional side of the spectrum. Nonetheless, a virtuous set of practices and incentives for grassroots EDM musicians would contribute to minimising many of the negative aspects in grassroots cultural

production (particularly individualism) and extend its benefits to a wider group of people. For example, in relation to beginners Abtan (2016) argues for experienced musicians to

> share your skills with them; but also: share your friends with them. I tell them to remember that culture is something that we build together, by doing and by teaching each other how to do things (p.58).

Abtan's suggestion is aptly aimed at musicians in positions of power, such as veterans and well-established local professional musicians, who could play an important role in reshaping grassroots EDM networks into more inclusive social structures and musical practices (including booking policies and musical collaborations). In doing so, their virtuous actions would contribute to foster better conditions for cultural production, if not in the professional sphere, at least on the grassroots level.

The examination of production conditions highlighted that material conditions matter in grassroots cultural production. Musicians must manage resources according to needs and commitments from musical, personal, and work spheres. Participants in the casual side of the spectrum are less likely to experience negative aspects resulting from the use of resources in musical activity, whereas, again, serious and aspiring musicians face a complex set of dilemmas as they support their on-going musical activities with resources from personal and professional activities.

Musical work and exposure function as currencies in the world of grassroots EDM. In this environment music-related work is largely unpaid (or low paid) and the value of exposure is increased. Unpaid work reduces the cost for promoters, venue owners, and UGC platforms, thus increasing their profits as well as potential opportunities for grassroots musicians who are willing, and able, to engage in music work. Moreover, the analysis of financial rewards and exposure demonstrated that they are intricately connected, and grassroots musicians consider their benefits in tandem. The analysis of the value of exposure and unpaid work can help further debates about "free labour" (Terranova, 2000; Fuchs, 2014) and its implications for cultural labour on the grassroots levels. As Toynbee (2013) suggests, the emphasis on the economic sphere on cultural labour may be counterproductive to cultural production at large, and the

evidence from grassroots EDM musicians across the casual-professional spectrum brings a nuanced view about the debate.

Balancing rewards gained from (low) pay and exposure is widespread in the world of grassroots EDM. The analysis of these rewards was informed by the notion that they provide specific sets of benefits and problems for musicians according to their position in the casual-aspiring professional spectrum. While all participants acknowledge the value of exposure, aspiring professionals highlighted its limits as a currency, and the analysis of booking practices and the bartering of favours illustrated the complex ways in which exposure is converted into financial rewards. The emphasis on exposure as a reward is frequently used to compensate for the fact that grassroots musical activity is unpaid (or poorly paid). In this context, participants have largely integrated unpaid work in problematic ways. As shown in section 2.2.1, cultural labour is characterised by precarious working conditions, which, some argue, includes exploitation (Papadopolous et al., 2008) and low pay. While evidence from participants' problematic internalisation of unpaid work reinforces claims about (self)exploitation in cultural work, the analysis of exposure and material rewards as currencies offers a nuanced perspective of the issue at the grassroots level. Thus, while unpaid work is found throughout the casual-professional spectrum, its negative implications increase as musicians find themselves closer to the professional side of the spectrum.

The analysis of revenue streams from music-related activity focused on online platforms for music circulation (UGC platforms) and sales (BandCamp), as well as live performances. Revenue from UGC platforms (like SoundCloud, YouTube) and music streaming (such as Spotify) is negligible for grassroots musicians, and (as will be argued in Chapter 6) online platforms are largely used to circulate music, build reputation, and increase potential exposure. Therein lies a dilemma for grassroots musicians: using these platforms is fundamental in musicians' efforts to build a career, yet most of the benefits are concentrated in the form of exposure, which is difficult to turn into profit in the short-term, thus potentially undermining long-term *sustainability*. Participants praised the business model of Bandcamp, and so far, it has successfully explored a niche market for small, independent musicians and labels. Bandcamp has a business model and marketing strategy based on ideals similar to

those proposed by fair-trade commerce – “we believe that music is an indispensable part of culture, and for that culture to thrive, artists – no matter the size of their audience – must be compensated fairly and transparently for their work” (Bandcamp, 2017). But while Bandcamp has been praised by aspiring professionals, it is still a niche platform, and arguably lacks in both appeal to most casual musicians (and those without commercial aspirations), and in fostering a sense of community; two forces that have pushed the UGC platform SoundCloud into becoming the leading platform for grassroots EDM musicians (examined in Chapter 6). However, with regards to rewarding musicians financially Bandcamp’s business model is a significant departure from those used by the vast majority of UGC platforms (YouTube, SoundCloud) and music streaming services (Apple Music, Spotify, Amazon Prime), and points to growing concerns about how a moral economy in cultural production could foster long-term sustainability for musicians (another issue highlighted in section 2.2.1)

Most of the money participants earn from music-related activity comes from performing live. As argued in section 4.3.1, booking fees are typically low and difficult to negotiate, and grassroots musicians must also choose carefully where to play. Following Bourdieu’s theory of the field of cultural production (as discussed in section 2.2), big clubs offer higher wages, low artistic autonomy, and low cultural capital, whereas smaller venues offer lower wages, high artistic autonomy, and high symbolic capital. Moreover, the closing of music venues in the UK (particularly smaller venues) compounds grassroots musicians’ difficulties in earning money from performances. As suggested in Chapter 7, this issue requires further research, and could involve local and national level cultural policies to foster grassroots level production.

Material wellbeing is important for grassroots musicians and supports their musical activities. Participants observed that their livelihoods rely largely on revenue from day jobs, and musicians on the professional side of the spectrum hold ambivalent views towards their day jobs. As discussed in section 2.2, jobs in the creative sector are marked by precarious conditions, low pay, and inequalities (in gender and class), and as a result, female participants and those requiring greater financial stability (including those supporting children and family members, and/or those from poorer

backgrounds) find it more difficult to rely on income from creative work to fund musical activities. The few participants whose livelihoods depend on revenue from music-related work reported having multiple waged-activities, and the excessive amount of time dedicated to these detracted from their personal musical ambitions, thus reducing creative autonomy and the potential for self-realisation. Non-music-related jobs play a pivotal role in supporting grassroots EDM activity, and in spite of potentially negative aspects, these jobs provide much needed steady income and regularity – advantages that are under pressure, as flexible working arrangements, zero hour contracts, and the 'gig economy' grows.

Serious and aspiring professional musicians dedicate considerable amounts of resources to music-related activities, generating potential problems in their personal and professional lives. Evidence from active veteran musicians suggests that managing resources according to a balance of music, work, and life commitments is key to sustaining long-term musical activity. Balancing their needs is a dynamic process and as discussed in the case of veteran musicians, ageing plays an important role as their priorities change. Moreover, as mentioned previously, the increase in precarious working conditions in an environment of austerity policies and threatens participants' abilities to subsidise musical activities (particularly via low-skilled work). Compounding these difficulties, the chapter showed that gender also plays an important role in balancing resources, with female musicians facing problems associated with the male-centred culture of EDM and gendered social roles.

As a form of 'labour of love', grassroots musical activity is invested with a mixture of positive and negative aspects for musicians. In this chapter I have discussed participants' motivations and working conditions as they engage with musical activities and shown how, in spite of drawbacks, it contributes favourably to their lives. In the examination of production conditions, the chapter reiterates Jones' (1992) suggestion that while "virtually anyone can make popular music […] not everyone can 'make it' (financially, creatively, etc.)" (p.11). Having looked at the challenges of 'making it', the next chapter examines how grassroots musicians make music, and it analyses learning strategies alongside the practices involved in writing and playing EDM.

Chapter 5
Learning, Making, and Playing Electronic Dance Music

5.1 Introduction

To successfully make and play EDM musicians must have access to tools required to create and manipulate audio, the skills to use them, and knowledge about the music as well as its culture. In some genres of popular music, such as rock and punk, beginners face low entry-level requirements: musical instruments are affordable, songs can be simpler to play, and, because they feature widely in popular culture, they are familiar. Thus, unlike genres such as classical music or avant-garde electroacoustic – characterised by high technical skill, excellence achieved through intensive formal training, and expensive instruments – learning and playing popular music can be simpler.

EDM, however, stands at a crossroads because making and playing it involves a mixture of low and high entry levels and skills. On the one hand, the basic technical skills required by DJs to mix tracks are relatively straightforward, but expertise requires long-term commitment. Moreover, basic equipment (records, digital files, turntables, audio mixers) is, for the most part, relatively affordable. On the other hand, the production of EDM has a much steeper learning curve, and, until the development of home studio technology in the mid-1980s, synthesizers and other electronic machines for music-making were largely restricted to domains inhabited by people such as professional audio engineers (in state-of-the-art recording studios) or progressive rock bands performing in large arena concerts.[60]

[60] As argued in section 2.4, musicians of early house and techno in the 1980s used mostly 'old', 'outdated' equipment, see Théberge (1997) for an in-depth view of the popularisation of musical instruments for EDM.

By the early 1990s the situation was changing rapidly, and grassroots EDM producers benefited from the rise of "affordable digital audio and consumer music technologies" within the context of "long-term trajectories of social, political, economic, technological, and musical change" (Born and Devine, 2015, p.139). Thus, alongside technological changes Born and Devine suggest that from the 1990s onwards, EDM production in the UK also grew because of (1) shifting educational policies implemented by New Labour – prioritising the expansion of higher-education (HE) in tandem with policies for economic and employment growth as part of the push towards the "creative economy"; (2) long-term cultural changes associated with "the expansion of sound recording, sound reproduction, and electronic music"; and (3) the "revolutionary expansion of musical and sonic materials" alongside "the electronic amplified sound materials characteristic of post-war popular musics" (Born and Devine, 2015, p.144). Together, these conditions contributed to the expansion and popularisation of grassroots EDM production and DJing, further catalysed by the internet and the circulation of digital media (such as music and audio manipulation software).

This chapter examines the ways grassroots EDM musicians learn, and how they make and play music. It investigates the issue from two angles: musicians' learning processes; and their compositional and performative practices when making and playing EDM. Music education and creative practices are examined together because they are deeply connected – one learns how to make and play music while making and playing it (Green, 2002). The chapter seeks to answer the questions:

1) What are grassroots musicians' learning strategies, and how have they incorporated digital communication technologies into their musical education?
2) How have changes associated with technologies for music-making and playing affected musicians' practices and experiences as cultural producers?

This thesis questions the extent to which digital communication technologies facilitate the musical practices of grassroots EDM musicians. This chapter contributes to the overall argument of the thesis by showing that digital communication technologies help grassroots musicians through increased access to content (music, as well as software for audio manipulation) and educational information (about how to make and play EDM as well as cultural meanings), as well as the chance to establish and widen social networks. However, this context reinforces old problems and creates new challenges for grassroots EDM musicians, as it fosters an environment of abundance (of music and musicians) and is associated with cultural changes in the world of EDM. Moreover, the problems extend beyond abundance and high competition, and in the words of music education scholar Lucy Green (2002):

> whilst the music industry and the media have increased music's availability, they have simultaneously dictated norms of performance and composition that result from such high levels of capital investment as to be virtually impossible for amateur musicians to attain (p.3).

Green's critique of norms and inequality in cultural production points to two key issues for grassroots EDM musicians: *access* and *quality* of information and content available. The abundance of information and content online is marked by pros and cons, and, as this chapter argues, an environment of abundance affects musicians' learning strategies and how they make and play EDM in positive and negative ways. But before we analyse grassroots EDM music production, we turn our attention to their learning strategies and the educational pathways available.

5.2 Pathways for Music Education

In the past three decades, the educational pathways available for popular musicians have increased, both through *formal education* and *informal learning processes*. In *How Popular Musicians Learn*, Lucy Green (2002) suggests that the two are not "mutually exclusive" (p.5) but rather connected and "can be conceived […] as extremes existing at the two ends of a single pole" (p.6). Formal music education, according to Green, is offered via a combination of "educational institutions from primary schools to conservatories" (p.3), written sources (curricula, syllabuses, written scores, and literature about music), lectures and training sessions offered by

specialists (experienced musicians and educators), with students being systematically evaluated for certified qualification (2002, pp.3-4). Unlike its formal counterpart, informal music education is an unstructured amalgam of practices and methods that have historically served as the primary learning pathway for musicians embedded in the worlds of popular music (Green, 2002, p.5).

The growth in formal educational has complemented what has historically been the most traditional learning pathway for popular musicians: informal learning processes (Green, 2002). The spectrum of formal and informal education is useful to analyse the benefits and problems each pathway offers, as well as the connections between them. As Stowell and Dixon (2014) suggest, technological developments such as UGC platforms, smartphones, and the MP3 format have increased informal learning in institutional settings, thus illustrating the connections between the two strategies. These connections are highlighted in the next quote by Annie Errez (mid-30s), who has been DJing and making music for more than a decade in Leeds. During the interview she reflected on how she began learning to make EDM in the late 1990s, and compared it to the current educational pathways available. She explained that:

> I think I came to making music quite late because kids nowadays, I think they're exposed to electronic music a lot younger than I was really. And they've got much easier access via the internet probably. Because when I was growing up, and when I moved here I didn't have internet [access] until maybe I finished university, so… you know, the only way to look stuff up was through the university really, and it was quite hard to get on the computer. I didn't have a computer. So, now you do, and, I think it's much easier for people to access an online course. Obviously a lot more colleges offer cheap courses on how to do [EDM]. For me, I was like, I just asked people and collected bits of gear along the way. So I just came up with my own way of doing stuff, and then I just figured… I thought about going to do a course or something, and then I thought, "you know what? I don't really need to", or… maybe I do [chuckles]. But I was a bit worried that if I did [a course] it would stop the creative flow that I have with this, and the relationship I have with the equipment now. You know, if I had to take it all apart and do it like a proper way or something, it might interfere with that.

Errez's account fits within the context of the rising popularisation of EDM and personal computers connected via digital communication networks. The changes in learning practices she associates with the internet – greater access to EDM and information about how it is made – are part of the larger economic, social, and cultural developments mentioned by Born and Devine (2015). Notably, most of the challenges Errez associates with her learning process are related to her sense of isolation from the worlds of EDM, as she grew up in a small working-class city in the northernmost part of Yorkshire, during which time her first (and only) point of contact with EDM was listening to late night radio shows. In her words, she would:

> sit in my bedroom and tune in [to] shows like Pete Tong and Grooverider [on] BBC Radio 1. It's very mainstream, but *they* had the late night shows.

Soon after arriving in Leeds she delved into the city's club culture of techno and house, and began working her way into the networks of EDM. A second aspect of her account about learning reveals an important generational gap in music education for grassroots EDM musicians: while she relied on peer support, observation, and musical experimentation conducted with "bits of gear [collected] along the way", today grassroots EDM musicians have a wider range of pathways available, including formal courses, and vast amounts of information available online.

5.2.1 Informal Learning Practices

According to Green, informal music learning practices do not rely on formal education, and function as "ways of passing on and acquiring musical skills and knowledge" (2002, p.5) outside educational institutions. Green defines the context and characteristics of informal learning practices as:

> encountering unsought learning experiences through enculturation in the musical environment; learning through interaction with others such as peers, family members or other musicians who are not acting as teachers in formal capacities; and developing independent learning methods through self-teaching techniques (2002, p.16).

And:

> making reference to recordings or performances and other live events involving their chosen music (2002, p.5).

The combination of informal strategies makes up for idiosyncratic and unstructured (in the progressive sense in education) learning, which integrates various skills and practices (listening, composing, performing, observing). Green's informal education strategies emphasise the importance of social networks of musicians and their music cultures. Through these networks musicians learn from each other using aural, verbal, and audio-visual communication – listening to recordings, talking during rehearsals, and writing down chord progressions and tablatures. Toynbee (2000) explains, "pop since rock'n'roll has used an oral/aural process of composition and song transmission between musicians, based on the empirical evidence of recordings, shared idioms and a specialist, if inevitably imprecise, vocabulary" (p.97). These informal strategies are used in online and face-to-face communication, and as, Stowell and Dixon (2014) argue, increasingly in a blend of both. Online platforms have facilitated the circulation of recordings, audio-visual information, and musicians' social networking (UGC and social media platforms, musicians' online forums, discussion groups), thus broadening the pathways for informal learning practices. The analysis of informal learning strategies here focuses on self-learning (via experimentation and listening to recordings), peer mentoring and support from experienced musicians, observation of their chosen music culture, and online tutorials.

Arguably one the most important aspects of self-learning is its hands-on approach. Those who defend the power of self-learning through experimentalism frequently argue that one can read as much as possible about musical instruments and still be incapable of playing. However, this hands-on approach to learning requires musicians having access to instruments and other music-making tools, and Slovenian musicians emphasised their difficulties. Veteran DJ and producer Janus 'Yanoosh' (mid-30s) explained the difficulties of having access to equipment in the 1990s:

> I didn't have money for synths or anything. Actually, everything that was musical, except the guitar, I've borrowed from friends, and I remember I got this guitar and distortion [effects pedal], it was fucking great! Ah, yeah, and then around '95, '96, my father bought the first computer. Then it all changed!

Section 5.3 of this chapter deals in more depth with the benefits of affordable and more accessible hardware and software for EDM production. For now, it is sufficient to mention that the popularisation of the personal computer contributed greatly to increasing grassroots EDM musicians' access to music-making tools. Another Slovenian DJ and producer Matjaz Zivko (mid-30s) spoke about how access to software for EDM production opened up the doors for self-learning early in his career:

> I became an electronic music fan in the mid high school and I wanted to try the studio work actually, it was my main thing, my main interest. I was not into DJing at all. I was more into technical things, like equipment and stuff, but normally at that time I couldn't afford anything, so only the computer. So I started with basic programmes, and at that time it was still Rebirth, and Reason, and stuff like that – like these old-school programmes.

Once in possession of music-making tools, Tine Vrabič (late-20s) praised the joys of experimentation and self-teaching with music software. He started with:

> *Reason*, the programme. It's really like a simulator of analogue synthesizers and drum machines and stuff, and I was, "wow! Look at all these buttons, what do they do?" It was like a videogame or something, it's really nice. It makes sounds, it's really impressive. So that's how I started. [A friend] gave me this copy of Reason and I started making some chilled out beats, some trip-hop.

Wider circulation of music software via digital communication networks became commonplace among music producers from the mid-to-late 1990s onwards. However, while copies of software for music production are easily accessible, learning how to effectively use the programmes by oneself is not. After obtaining a copy of Reason, Tine Vrabič explained his challenges to use it:

> I learned it all by myself. My training was actually pretty, pretty bad. I had some people around who were making music, but none of them had time to teach me something. In the end I learned just by clicking and listening and stuff.

The lower quality and unreliability of cheaper instruments is another issue for beginners. Veteran and aspiring professional DJ Bernardo 'Bera' (late-30s) explained:

> I bought my first turntables, a pair of Geminis, which made me suffer like a dog [laughs], but it was good because whoever learns to play with those can play with anything later.

Hands-on self-learning relies largely on trial-and-error, and, as the quote above indicates, the process is often frustrating and time-consuming. Talking about his first pair of turntables, Will D'Cruze (early-40s) explained that:

> the turntables that *I* could afford *were* Technics, but they were belt-drive 22s – BD22s – and they *do not like* human touch. They just like to play a record, but they don't want to be manhandled while they are doing that. So I had to learn to DJ *really gently* and be very very cautious with the pressure that I put on the record, with the amount of friction from the slipmat. But yeah, it taught me to be *really* gentle and refine my mix. So by the time I got the 1210s, a year or two years later, it was… it was all my dreams come true.

But these dreams did not last long:

> when I first started playing break beats I pitched my turntables up inside. I've got hold of the components, gave them a tweak so they would go faster. A typical rave thing to do, you know what I mean? [Laughs] Sadly, years later it has cost me, because I can't find true zero again, and it fucks up the BPM slightly with [the DJing software] Virtual DJ.

Will's frustrating experience tinkering with his turntables illustrates the kinds of challenges beginners face when experimenting without support from experienced musicians or knowledge about potential negative outcomes. Thus, while there are positive aspects to experimental self-learning via trial-and-error, the process is facilitated with help from a mentor or experienced peer.

Alongside trial and error, grassroots musicians rely on support from peers, particularly more experienced musicians.[61] Support takes many forms, including mentoring, joining a collective or group of musicians, partnerships in music-making, co-managing record labels, and collaborating in organising and promoting EDM events (such as regular nights, residencies, festivals, radio shows). Leeds veteran DJ and producer Al Bradley (early-40s) explained the importance of encouragement from friends as he took his first steps into music production:

> I was encouraged by some friends really, just like "why don't you try to make a few little bits of things yourself? You can get software easy enough, just have a little play around, you know?" That was kind of how I got into the production side of it, it was just purely to have something to do and keep my label going.

With the popularisation of digital formats his label began to struggle – revenue from digital releases was insufficient to compensate the loss of revenue from physical sales – and he was encouraged to start producing music. The initial results were poor, and he quickly searched for support from peers with experience producing EDM. Recollecting his initial steps in the studio he explained:

> I just taught myself, probably quite basic stuff I guess, and then one of the guys I do production now… he's a little bit more old school. He's got loads of old synths and that side of things, and he's really sort of inspirational in a sense that he kind of helped me learn a little bit of the musical side of things, and you know, how to program the synths and [software] plugins. That was probably the thing which really was the biggest boost for me. I worked out how to do things in a basic way [by myself], but I kind of reached a ceiling on my own, and [his help] really put me 2 or 3 steps above.

[61] In *Mind and Society*, psychologist Vygotskiĭ (1978) argues that self-learning is important but has limitations. His theory of the 'zone of proximal development' encourages self-learning assisted by experienced supervisors.

With help, Bradley's production skills improved quickly, and with support from an experienced music partner – in the form of advice and access to equipment – he overcame the limitations of self-learning. Since then, the two have produced over a dozen tracks, and Bradley has been releasing music consistently in the past years on various labels.

Physically circulating through common spaces and social networks of experienced musicians also provides impromptu informal face-to-face peer-support. By the time Tine Vrabič bought his first drum machine, he had already released a couple of tracks on independent labels. These early tracks had been produced with a computer running music production software, but he was frustrated with the feeling of "lack of control" offered by what he described as "non-intuitive graphic user-interface" of the software (an issue explored in section 5.3.4). However, his Roland TR-8 drum machine was not as intuitive as he expected, and he struggled with it because:

> it has this "shuffle" mode, and I had it turned on. So I was doing music all the time wrong, and I was like, "fuck, why does it sound wrong and stuff? Is the rhythm machine broken or something? What's wrong?" So I asked the guys who were in the next studio what's wrong, and they, "oh, you have this shuffle button, just put it in the middle". Cause I thought, if you put it in the left it's off, not in the middle. It's not logical, but yeah. So then it clicked me, "maybe it would be ok just to read some manuals" [laughs]. To get the cables and the combinations all right. So now I am reading the manuals [laughs].

Vrabič was fortunate to share studio space with experienced musicians, and those who do not have the privilege often seek help online. Participants frequently referred to UGC platforms (like YouTube), online discussion forums, and musicians' groups in social media platforms as important channels for information and peer-support. Online, grassroots EDM musicians share information about music production, negotiate opportunities and collaborations (including remixes), get feedback about music and production techniques, and explore the worlds of experienced EDM musicians. The connections with experienced musicians are important, and beginners are constantly searching for constructive feedback. Aspiring professional producer Otis Farnhill (late teens), explained that he joined a group of 'bedroom-producers' on Facebook so that he could network with peers, and more importantly, receive

feedback from experienced musicians about his music. By the end of fieldwork, the group had over 67,000 members, and its size has attracted the attention of record labels and experienced producers who offer free voluntary feedback. However, as Farnhill pointed out, not all the attention beginners receive is useful or supportive because:

> sometimes you know, it's constructive criticism or it's something like, "this sound really *bad*, *but* if you do this…". But yeah, the kind of main thing of it is people just, you know, almost trolling on it. Setting out to put someone down, and I've seen it happen to other people, and it has happened to me as well: someone posts up a track and then someone [else] just puts, you know, hurl abuse at them and it doesn't make sense because it's just, it's a piece of music you know? This person is asking for feedback and you're wasting your own time because they're not going to pay attention, to [provide] comment that *doesn't* give them feedback.

Farnhill did not want to elaborate further about the abuse, but it could be explained by the high level of competitiveness between aspiring professional musicians, the struggle to get noticed, as well as the phenomenon of online trolling. Unfortunately for grassroots musicians, the negative aspects of competitiveness in peer-relations extend beyond online interaction. Take the case of Leeds-based DJ Gabrielle Cooke (early-20s). She explained that the need to have the newest and most exclusive music can be a source of problems for aspiring DJs like herself. She explained that during a practice session:

> Cooke: yesterday, when I was mixing with my friend, he was like "oh can I have some of your songs off your USB?" And that's the first time I've had that conversation with someone, and I've thought "well I've looked for all of this, this is my sound, and do I really want to give that to someone else?"
>
> Interviewer: And what did you do?
>
> Cook: I… I said yes, but then he ran out of time so he didn't have time to copy. And I thought about that afterwards, "I'm quite glad, actually, that we didn't do that" cause he has a lot of good stuff as well, and, he's like quite a big DJ anyway, and he plays out every night, and I thought "if he is going

> out every night and play all my stuff then people are going to think that's his and when it's my turn it's not new anymore".

Cooke's struggles sharing music with a well-established DJ reveal a significant dilemma for beginners: negotiating support from experienced musicians while carving a niche of their own. In her case, the dilemma was about the high subcultural value of the selected tracks, the importance it has in shaping DJs' musical identity, and the considerable efforts needed to discover music. Ultimately, the problem was less about sharing music files, and more about the social, cultural, and personal meanings she associated with her musical selection. As argued by EDM scholars (in section 2.4), members of disc cultures associate strong meanings with cultural texts, and these meanings are constantly disputed (Thornton, 1995). Thus, in spite of the abundance of music in digital form, subcultural values associated with exclusivity, rarity, and novelty of music persist, as indicated by Cooke's reluctance to share. In fact, the subcultural value of rare music has arguably been exacerbated in an environment of abundance because even though music is widely available, finding valuable tracks requires time and concerted effort.

The third kind of informal learning practice examined here is musicians' observations of the world of EDM. Observation can be seen as part of the process Green calls "musical enculturation", defined as "the acquisition of musical skills and knowledge by immersion in the everyday music and musical practices of one's social context" (2002, p.22). As argued by scholars and authors in EDM (Thornton 1995; Reynolds, 2013; Gilbert and Pearson, 1999; Mjos, 2013), learning about everyday activities and musical practices in EDM cultures extend beyond clubs or live music venues, and include records, magazines, clothing, dancing styles, and other forms of cultural manifestations. One participant explained how he learned to make music as:

> just trial and error really. Ehm… Yeah, I just kind of like, listened to my favourite records over and over again and then tried to recreate it. I guess that's how I started to do it.

User-generated content platforms have had an important role as sources of information about the world of EDM. Grassroots musicians turn to UGC platforms such as SoundCloud and YouTube in search of music, interviews with musicians, reviews (of records, events, and instruments), news, and live performances. Gadir's

(2017b) analysis of Nina Kraviz's performances (and fan backlash) on the online "virtual club" "Boiler Room" (archived on YouTube) reinforces the idea that "one of the appeals of watching a performed event on video is to witness the feedback from the participants and performers who are co-present" (p.203). Moreover, her analysis illustrates how "'mundane' modes of 'performativity' are incorporated into behaviour, dress, bodily appearance, and language" (p.203), which offers a glimpse into a heavily "mediatised" (ibid.) version of DJing performativity.

With regards to observations about music-making technique and methods, online tutorials on UGC platforms were the most significant source of information reported by participants. The examination of online tutorials is under the informal learning strategy of observation because, in the words of one participant, "they feel like I'm in the studio with a producer as he makes music and explains how he does it". Among the UGC platforms mentioned by participants, YouTube is the most important because participants suggested it offers a wide selection of content (mostly free of charge) uploaded by experienced musicians, software and musical instrument companies, and specialist reviewers. In the words of veteran Slovenian producer Kleemar (mid-30s):

> you can find everything in YouTube. We all go to YouTube to find something, tutorials, reviews, even to listen to music. At the end it's unavoidable I guess.

Kleemar is partially right. There are vast amounts of information available on YouTube, but not "everything", and his comment is evidence of the degree with which discourses about the democratisation of information online has seeped into the imaginary of grassroots musicians. Nevertheless, information available in online tutorials is useful. Danny James (late teens) is an aspiring professional DJ and producer who praised how online tutorials helped him in learning how to DJ when:

> I had no work whatsoever, I was literally in my bedroom learning how to DJ myself. Didn't have any lessons. I basically watched YouTube tutorials, all the time, that's all I did.

As *user*-generated content platforms, they allow grassroots musicians to upload tutorials themselves, thus adding to the platforms' collection, and reinforcing its

usefulness and reputation as a versatile platform for learning. One of the participants who uploaded tutorials to YouTube was Tom 'Leemajik' (late-20s), a professional audio engineer who produces EDM in his spare time. When asked why he began making tutorials and uploading them to YouTube, he explained:

> at first I used to upload these funny videos, but then I started, "ok, I saw a lot of guys doing this music, like YouTube musicians" and they place their camera and, "look at my gear! Look what I do!" I did not want to show off, so I made some tutorials about how I used my stuff and some people liked it.

Leemajik eventually uploaded close to a dozen videos, mostly tutorials on how to use the Octatrack – an eight-track audio sequencer and effects unit he is proficient with. However, after the initial surge of enthusiasm, he developed a cynical view about posting tutorials, which later drove him to criticise his motivations to upload. The problem, in his words, is that:

> nowadays I don't feel like it anymore, but I did a lot of videos, like 10, maybe 11. But it suddenly stopped, I don't know what happened, but suddenly I was, "why? Why should I do this?" It's not that I really created music, I was playing live, I was noodling with the crossfaders and everything, but no man. It's not the vision I want to give out as my music, as what I do.

Leemajik's comments reveal a major issue with YouTube tutorials. In his view, there is a conflict between his perceived image as a producer of tutorials and his ideal of artistic identity – explicit in the comment, "it's not the vision I want to give out as my music". In other words, making music and making a video about making music have different meanings, and, in his view, making tutorials himself distracts and undermines his artistic integrity. Tom's view is similar to critics of the logic of promotional cultures (a topic discussed in Chapter 6), and reflects the challenges grassroots musicians face with the increasing pressure to raise "the aesthetic standards of videos" and make "the whole user experience more uniform and pleasant" (Lobato, 2016, p.357).

The amount and variety of information available online is an invaluable resource for grassroots EDM musicians, but quantity can be a problem. Musicians must contend

with the balance between access to, quality of, and time required to find useful tutorials. Quality here refers not only to the technical features of the videos (like image resolution, camera angle, lighting), but also the kind of information presented. Some participants commented that tutorials can be misleading, pointless, and time-consuming. In extreme cases, tutorials are even dangerous to their health and wellbeing. Writing about the work of opera singing coaches Paglin and Brilla, Warner (2017) explains that:

> Paglin and Brilla mine the internet for teaching videos that concern them, such as one in which a soprano chides a student to open her mouth wider and wider as she sings an aria, in order to achieve more volume; not until the student plugs her fist into her mouth is the teacher satisfied.

Paglin and Brilla advocate a natural singing approach, which is popular among students but controversial to a group of well-established opera lecturers in Italy (Warner, 2017). The main danger according to Warner is:

> the rise in vocal injuries is linked to a change in what we consider good singing. Across all genres, it has become normal to believe that louder is better. (One reason that Adele is such a big star is because her voice is so big.) As a result, singers are pushing their cords like never before, which leads to vocal breakdown.

Warner's critique focuses on an extreme case where (mis)information can hurt music students and undermine future careers. Fortunately, the threats to the wellbeing of grassroots EDM musicians seem less severe, yet are still present, as evidenced from research about hearing loss.[62]

[62] Hearing loss due to over-exposure to loud music is a notable exception, and it disproportionally affects music students (Phillips et al., 2009), club-goers (Williams et al., 2010), and dance music DJs (Bray et al., 2004).

Superficiality and an orientation to troubleshoot small(er) problems is another issue in online tutorials. The self-taught professional DJ and producer from Slovenia, Tine Vrabič (late-20s), complained that:

> the tutorials are really… I don't know, they're all, like ahm… They're only showing the sounds, or how to make beats and stuff, really just some basic stuff. You have to wait a while for them to upload some useful tutorials for the hardware stuff. But for the software you have all sorts of tutorials. You really have to go through all of them to see if you're not missing something.

Tom 'Leemajik' (late-20s) explained the differences between learning from online tutorials in comparison with his hands-on approach to solving problems in a live context. He explained that watching tutorials online:

> advanced my knowledge about creating and connecting MIDI cables and screaming, "why is it not working?!" But, in the end, it turns out that I *really* know MIDI now. I did have a long time coming that I should understand this, but I mean, I was really learning a long time. So it paid off. But nowadays… today is different. You have all those tutorials on the Internet, on YouTube. It's good, yeah, but when the real problem comes, when you're on a stage or something, and something happens, and you don't actually know what happens and you don't know how to troubleshoot the mistake... then you're in trouble.

Tom emphasises the different contexts in which knowledge gained from online tutorials and hands-on experiences crossover – particularly during live performance, when 'getting the job done' in time is essential, and stopping to watch an online tutorial is unworkable. In conditions where time is not a constraint – rehearsals, practices, and studio work – online sources are valuable sources of information, even if it takes time to find it. However, informal online learning does not substitute hands-on experience, it is rather a helpful complement.

To summarise, grassroots EDM musicians rely on informal strategies to learn about EDM cultures and the skills necessary to make and play music. The analysis of the informal learning practices adopted by EDM musicians focused on three elements – self-learning, peer-support, and observation. Online platforms offer informal learning practices for EDM musicians, including greater access to tools for audio

manipulation, access to networks for peer-support and feedback, and to a vast depository of content about the world of EDM musicians. However, there are challenges. Self-learning requires substantial amounts of time for trial-and-error, and varying degrees of success and frustration. Informal peer-support available via online platforms can be unreliable (or abusive at worst), and peers often compete with each other with potentially negative results for those in weaker positions. Finally, with regards to observational practices (more specifically online tutorials) grassroots musicians have a vast amount of information available online, but it can be misrepresenting of EDM culture (as the case of "Boiler Room") and, in the case of tutorials, too focused on troubleshooting small technical problems, and useful mostly under rehearsal and practice conditions.

5.2.2 Formal Music Education

The recent history of Popular Music Studies (PMS) indicates a growth of formal educational pathways available to popular musicians. Cloonan explains that PMS in the UK had a "head start due to the pioneering work of the Centre for Contemporary Cultural Studies" (2005, p.78). As popular music grew from the 1960s onwards, so did PMS (Cloonan, 2005), and by the late 1990s PMS was a thriving multi-disciplinary field, even if it remained a "relatively marginal, academic area" (Hesmondhalgh and Negus, 2002, p.1). Alongside reflexive and critical investigation of popular music's values, meanings, and power structures (influenced by cultural studies), PMS also offers a largely vocationalist approach to education, designed to teach students the skills and knowledge needed to work in the music industries – such as instrument playing, composition, recording and audio engineering. These two approaches, critical cultural analysis and vocational training, coexist in PMS, and at times appear at odds because, "many students struggle to see what insights sociological theory can lend" (Cloonan, 2005, p.87) to their future careers.

The growth of formal education for popular musicians also benefited EDM musicians. Born and Devine (2015) argue that formal education for EDM musicians in British Higher Education has grown and includes courses and institutions offering degrees in *traditional music* (TM) and more recently *music technology* (MT). As shown in the introduction of this chapter, the authors argue that this growth is driven by an increase in "affordable digital audio and consumer music technologies" as well as "less

obvious developments" that reflect "long-term trajectories of social, political, economic, technological, and musical change" (Born and Devine, 2015, p.139). With regards to digital technologies, the authors acknowledge the contribution of internet access in popularising EDM *and* MT courses. However, developments in formal music education must be understood within a wider context of: 1) shifting educational policies implemented by New Labour in the 1990s, which prioritised the expansion of HE in tandem with policies for economic growth and employment, as part of the push towards the creative economy (particularly in sectors powered by digital technologies); and 2) long-term cultural changes associated with "the expansion of sound recording, sound reproduction, and electronic music technologies", the "revolutionary expansion of musical and sonic materials", and "the electronic and amplified sound materials characteristic of post-war popular musics" (p.144).

The growth of formal education for EDM musicians is marked by striking differences between the demographics of students in TM and MT. Born and Devine's analysis of student demographics highlights divides along the lines of gender and class: TM degrees draw students from higher social class backgrounds with a gender balance consistent with national averages for students in HE; whereas MT courses are "overwhelmingly male and lower in terms of social class profile" (2015, p.135), with a significantly higher representation of black and minority ethnic students when compared with TM (2015, p.135). The disparities between gender and class are a cause of concern because it is evidence of uneven social and economic distribution in the student population, thus perpetuating inequalities in cultural production. Moreover, it indicates that fewer female musicians are learning music, technology, and EDM production in formal HE institutions.

Attendance at formal music education courses is a clear indicator of professional aspirations. All of the seven participants with a HE music degree have, or had, professional aspirations. Moreover, two participants who completed music courses in local non-HE institutions also share professional ambitions. One of them is Danny James (late teens), who had just recently completed a DJing course in a small private 'music academy'. He highlighted how the agency has been helping him build his career:

> once you've completed the course. If they think you're ready, then they put you on their agency and they send you out to certain jobs. They're really happy to help you.

For aspiring professional musicians, the challenges of formal music education are threefold: accessibility to courses; a narrow vocationalist approach that overemphasises technical training; and uncertainties about career development in music-related areas (examined in section 4.3). Regarding the first issue, evidence from the growing numbers of MT courses and the increasing number of graduates (Born and Devine, 2015), suggests that MT courses in HE have become more accessible to musicians from lower middle class and working class backgrounds. However, student demographics indicate formal education is unevenly distributed, and tuition costs remain high.[63] The second challenge is the vocationalist approach, which Cloonan (2005) argues is a result of the current pressures facing UK HE institutions at large. Increasingly, formal music educational institutions orient their curricula to emphasise student's *potential* to realise their professional *aspirations* by building on skills and knowledge that are *transferable* to the job market (Cloonan, 2005). While the vocationalist approach is designed to provide high-value skills for the music market, participants who were unable to find music-related work often question their decision to invest high levels of resources in a vocationalist-driven degree. In this context, potential students must carefully weigh the benefits and shortcomings of high-cost vocationalist education (alongside the limitations of the job market) with other courses, which may offer better prospects for their future. As well as vocationalism, students in MT courses face a third problem: how to convert their knowledge into career development, as a musician (within the music industries, independently, and in related areas) or in a different field altogether. In regards to the two last problems, Cloonan suggests that the challenge PMS must face is to:

[63] With tuition fees for the 2017-18 academic year capped at a little over £9,000, the total cost of a three-year music technology course sits at around £27,000.

> move beyond what has been described as useful knowledge – such as that which allows one to make one's way in the world – into *really* useful knowledge, which imparts a genuine understanding and a desire to change the world (2005, p.90 original emphasis).

Cloonan's argument is a call for serious self-critique by HE music institutions. The potential of formal music education to offer better career prospects for students is severely undermined without a deep engagement in changing the broader context music students face (including working conditions, competitive individualism).

As argued in Chapter 4, the chances of building a career in the music industries are still problematically related to gender and class. The labour market in the creative industries is skewed to the benefit of male workers from middle and upper class backgrounds. Thus, the problems identified with formal music education affect musicians from poorer social backgrounds harder because in spite of their training, and resources invested in learning, they have lower prospects to build a career than their wealthier counterparts. Following Cloonan's (2005) suggestion, broader and critical curricula alongside serious commitment for change could improve students' futures – as active musicians or in other fields.

Alongside technical training, the benefits of attending formal music education courses also include socialisation and networking. Take the case of the local Leeds DJ school that James, Farnhill, and Cooke attended. It is a small company run by a handful of local DJs and music producers. Courses tend to be vocational, and mostly oriented towards basic and introductory-level lessons with training sessions tailored for beginners and those wanting a quick hands-on approach to learn how to DJ and make electronic dance music. At the time of the interview, Gabrielle Cooke had just finished an introductory 20-hour DJing course. Her experiences with the institution and the people she met there were largely positive, and she was considering enrolling in a music production course to increase her chances of making a career as a professional EDM musician. She explained that attending the courses was:

> a good idea, otherwise how do you start? Most people just teach themselves, but at the end I think it just speeds up that whole process, learning a lot quicker. But then also, it means that there is a lot more people in Leeds wanting to DJ. I know a lot of people that already DJ in Leeds that are not

> so pleased about the idea of [the school], because it means that there is a lot of people you know, a lot more competition for the jobs and stuff. But I think that if you're good then it shows, you know? Not everyone can do it, not everyone can stick at it.

Her comments show how these courses and institutions affect the underlying economic and social context in the highly competitive environment of DJing. As well as teaching the skills, techniques, working standards, and the very language used, or in the words of Porcello (2004), "the technical discourses relevant to the [audio-engineering] professional" (p.738), formal institutions for music education are also social spaces.

As shared spaces formal music education institutions allow another fundamental aspect for professional success: networking. Participants who attended the small Leeds 'DJ academy' described their relationship with people they met in largely favourable terms, and they share music, collaborate on gigs, and operate together to find strength in numbers (see the discussion about groups of EDM musicians and defensive networks in section 4.2.2). Xavier Bonfill's (late-20s) decision to move countries and enrol in a HE music institution was also largely influenced by the possibility of widening his professional network internationally.

Not all social experiences in formal music institutions are positive. One participant described the difficulties he encounters as he negotiates high levels of social anxiety and competitiveness in the context of formal education. After more than a year attending courses he was unable to establish social contacts and build his artistic reputation with his peers. His plan to counter the situation was to showcase his DJing skills:

> at some point and get to do a party for my uni mates and *blow* their fucking legs out from under them, you know? And that's, that's when I expect to start linking it up. But like I said… I get, I get real anxiety about going in places that [long pause].

The disproportion between the high number of musicians with music degrees and fewer work opportunities has significant effects on the grassroots level of EDM production. On the one hand, the technical quality of grassroots EDM production is

increased, but on the other, it drives competition and frictions within the worlds of EDM. Take the debates about the *loudness wars* as an example.[64] Audiophiles and music producers have long debated the pros and cons of boosting the overall volume of music via *dynamic range compression* (or simply *compression*). Compression is an audio manipulation process commonly used in the post-production phase known as *mixing* and *mastering*. During post-production, music producers use an audio compressor to amplify quiet sections of the song and reduce the volume of loud parts. Ideally, compression is used to improve audibility and increase overall volume without distorting the signal, but loudness critics have pointed out that producers of pop music have overused the effect in their efforts to make music sound *louder* (as in higher volume), not *better*. Critics of loudness suggest that, as a result, the overuse of compression has led not to an increase, but rather to a loss of audio quality, evaluated through both technical and subjective means. Thus the technical debates about loudness include subjective (or aesthetic) value judgments, and musicians (beginners) who are unaware of the intricacies of the debate face negative consequences. Take the case of a Slovenian DJ, producer, promoter, and label owner in his mid-30s who holds a degree in music production. His views about beginners' over use of loudness in the production process highlights the problems they face:

> I'm super into dynamic range and I love tracks that are not over-compressed and whatever. But still, if it's too quiet, I cannot listen to it, I hear crackles here and pops there and blah blah blah. Please, finish your track. *Finish* it. Here [in Slovenia] is a lack of knowledge because a lot of artists, a lot of producers, they are making tracks and they want the tracks to sound good and they make the mastering immediately.

His background as a MT graduate informs his vision of the whole chain of music production, and in his view, the overuse of compression (either as an individual

[64] For a historical view on the role of loudness in popular music see Devine (2013) and Vickers (2010), with the latter using game theory to analyse the escalation of loudness. Malachy et al. (2014) highlights benefits from the loudness wars and suggest it has increased audiences' perceptions of audio quality.

process or misplaced within the production chain) by beginners compromises their chances for success in at least two ways: by decreasing the audio quality; and by showing what he sees as a lack of interest and commitment. In other words, 'incorrect' use of compression and loudness (according to technical and cultural references) compromises the music and the musician because:

> they obviously don't understand what is the process and it's again, instant [gratification] you know. That's the reason why I went to audio engineering later on. I noticed that I had a lot of knowledge, but I had some basic holes that I wanted to understand – that's the reason I went there. Or you can find it on Internet, everything you can find on Internet, but you have to go to, I don't know, if you're involved in that [music] business, or whatever business, you try to find people who can show you something new, inform you. Or you get tutoring, [or] you go to whatever educational shit you can get.

There is clear evidence of passion, dedication, and a genuine desire for better music to be made by beginners in this excerpt. However, the issue aspiring professionals face is not only technical, but also one of positioning within the debates about loudness: while over-compression is arguably an industry-wide practice in pop music (including some of EDM's most popular subgenres such as electro house, big room, dub step, and trap), it is frowned upon by many audiophiles and producers with formal music education. As the participant above indicates, one alternative is to invest time and resources in learning music production skills. However, as argued in this subsection, while both informal and formal learning strategies offer pathways for learning, each has shortcomings that must be navigated by grassroots musicians.

While pathways for formal music education have been widened and are now more accessible than before, they also reinforce a gap separating those with formal skills from autodidacts. Formal music education courses (particular MT) are often labelled as a pathway to jobs in the music-industry, but long-term success and benefits available to demographics that attend them (students from working class and lower class backgrounds) are difficult to obtain. Moreover, following the argument from Chapter 4, it is clear that 'making it' in music requires more than knowledge and skills. Informal music technologies and the learning practices they foster complement formal music education in the classroom (Stowell and Dixon, 2014), and as clearly

indicated by participants, outside classrooms too. However, while information available online can be valuable, its usefulness is limited by the factors examined in this section. Having analysed the pathways for music education available for grassroots EDM musicians, we now focus on their experiences and musical activities as they make and play electronic dance music.

5.3 Making and Playing Electronic Dance Music

Technological developments have played an important role in how EDM musicians make and play music. During the 1980s, EDM producers enjoyed the benefits of increasingly more affordable audio devices and machines for music production, such as multi-channel audio recording equipment, synthesizers, drum machines, samplers, and effects units (Jones, 1992; Théberge, 1997, 2004; Prior, 2010). The creation and popularisation of new devices for music-making have had a profound significance in music-making, and as Jones (1992) reminds us:

> it is at the level of composition and realization that one should begin to analyse the relationship of technology and popular music, for it is at that level that popular music is formed (p.7).

Affordable audio equipment facilitates music production on all levels, from professional producers in high-end recording studios to their more modest counterparts writing music in home studios. But while by the late 1980s prices of home studio equipment had dropped considerably, setting one up required considerable financial resources (Porcello, 2004) and today it still demands knowledge, time, and commitment (Watson, 2013).

By the mid-to-late 1990s, the entry-level thresholds for producing EDM were lowered further. Alongside the growth of music education and the socio-cultural changes mentioned in section 5.2, the increase in the numbers of people making and playing EDM is also associated with the popularisation of personal computers, digital communication networks, and software for audio manipulation. Nick Prior (2010) argues that “the complex machines and spaces that once imposed financial barriers to production are no longer the necessary prerequisites for quality”, and “an expanding global market for domestic personal computers and music-authoring software […] has

transferred a colossal bulk of recording equipment onto the desktops and laptops of ordinary musicians" (p.402). As a result, personal computers equipped with specialised audio software "combine the functions of a range of hardware separates such as mixers, compressors, sequences, and samplers into a single virtual unit" (Prior, 2010, p.402).

Alongside computers, audio manipulation software is essential in computer-based home studios. The most popular audio manipulating software includes virtual studio technology (VST), digital signal processing (DSP), and digital audio workstations (DAW). By integrating various pieces of software, DAWs are the centralising hub powering musical composition with computers, and Matos (2015) argues that Ableton's DAW *Live* closed the boundaries between studio composition and live performance (p.290). Launched in October 2001, Live offers a software alternative to the combination of dedicated samplers, drum-machines, synthesizers, and sequencers used in EDM. As a result, by the mid-2000s the number of EDM "live acts" increased as Live "is used as composition and performance tool, its sequencing interface allowing enormous flexibility." (Matos, 2015, p.290). Technobrega producer Beto Metralha also praises the flexibility and power of computer-based music production systems. Technobrega is a subgenre of EDM developed by independent producers in Manaus, the capital of the Brazilian state Amazonia. Metralha explains how the DAW FruityLoops (by the Belgian company Imagine-Line) allows flexibility, because in technobrega "we've taken out the acoustic instruments and added only electronic instruments, like a synthesised keyboard, and we make all the beats in the computer" (Metralha, in Godinho, 2010). By adopting computer-based production, producers like Metralha are able to make EDM with low costs.

At the same time that computers and DAWs were becoming popular among producers, DJing was also undergoing significant shifts with the introduction of music in digital format and "digital turntables" – most notably Pioneer's CDJ line of CD-players designed for DJing. Since its introduction in the late 1990s, CDJs have become an industry standard in the world of EDM, and latest models have introduced Universal Serial Bus (USB) ports and Secure Digital (SD) card readers, dispensing with the need of CDs for live performance. The popularisation of digital DJing challenged not only the dominance of turntables and vinyl in DJ's booths, but also

socio-cultural values associated with these objects (as discussed in section 5.3.3). Moreover, the vast amount of music in digital format available through computer networks has affected how records and music in digital format is collected (Marshall, 2014), and the roles of DJs as music curators.

The adoption of the networked personal computer as the primary tool for making and circulating music reflects larger shifts in the social, technological, and economic context of the EDM world. In 'The rise of the new amateurs', Nick Prior (2010) suggests that "the digital lies at the center of claims regarding root-and-branch changes in the way culture is produced, disseminated, and consumed" (p.399). The shift towards what Prior calls 'the digital' (p.399) offered even cheaper and more accessible alternatives to their analogue counterparts.[65] Writing about the impact of digitalisation in the music industry in the past century, Hesmondhalgh and Meier (2017) argue that the rise of digital technologies for music consumption has displaced the ways people access culture, and in the case of the music industry has contributed to a shift of focus from consumer electronics to the information sector. As both producers and consumers of music, grassroots EDM activities are deeply influenced by "the globalized circulation of music in ones and zeros [which] has been implicated in a radical overhaul of the music industry" (Prior, 2010, p.399). Although access to tools for making and playing EDM has increased in the past three decades, a number of barriers still hamper grassroots EDM musicians from flourishing musical practices. This section examines the technological innovations adopted by grassroots EDM musicians alongside the challenges they face.

5.3.1 Instruments and Digital Tools for Electronic Dance Music

The adoption of devices such as digital DJing turntables for live performance and personal computers for composition marks a significant shift from earlier musical

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[65] Prior (2010) argues further that 'the digital' is "sometimes lauded as a revolutionary new set of creative practices, sometimes denigrated as a technological beast responsible for destroying music, the digital has become a technocultural *leitmotif* for the twenty-first century" (p. 399).

practices in the larger world of EDM. DJs are no longer confined to vinyl records and turntables, and specialised audio manipulation software effectively substitutes dedicated synthesizers, drum-machines, samplers and sequencers. The widespread use of these devices has contributed to increasing accessibility to musical tools and lower entry-level requirements for aspiring musicians. As a result, the pathways available for making and playing EDM have expanded, and with them, new sets of corresponding practices and associated values. Writing about the shifts in turntable technology, music journalist Rothlein (2013) argues that:

> at the dawn of DJing, vinyl wasn't just the preferred format but the only format for mass-produced recorded music. Over the last three decades, though, we've had a series of shifts – first came the CD, later the internet and MP3s. With computers, we also witnessed a profound democratization in music production, one that flipped the script on where, how and how quickly music could be made. None of this unseated the [Technics] 1200 as a profoundly important tool to DJs; it did, however, mean DJs had needs that Technics decks alone couldn't accommodate. Introduced in 1994, the Pioneer CDJ came to represent a different sort of stability in the booth – where 1200s would ensure DJing *could* always stay the same, CDJs reliably evolved with the times (original emphasis).

Rothlein is right to point out the increase in music production associated with the popularisation of personal computers, as well as the new alternative to DJing that digital turntables offered. He is also right in highlighting the changes in "where, how, and how quickly" EDM is made, but his claim of "profound democratisation" strikes an overoptimistic tone and must be understood within socio-historical contexts. For example, the adoption of digital technologies for music production by grassroots EDM musicians has been marked by tensions resulting from its disruptive potential (most notably of the labour market and creative practices), as well as struggles for access and ownership of the tools of cultural production.

The difficulties grassroots EDM musicians had in accessing the tools needed to make and play EDM before the turn of the millennium helps to understand the significance of changes associated with the networked personal computer used as a musical tool. As argued in section 2.4.2, access to music equipment (or lack of) has shaped creative practices in EDM, as illustrated by the (re)appropriation of the turntable as an

instrument of cultural consumption into production. However, in order to be able to (re)appropriate audio devices for creative purposes, musicians must first have access to them. All participants mentioned that cutting edge equipment is expensive and largely unaffordable for many but the wealthiest of enthusiasts. Moreover, the availability of material resources varies greatly for grassroots musicians, and the same equipment that is accessible to some is unaffordable to others (as will become clear with Slovenian musicians). Thus, insofar as musicians produce culture and consume technology (Durant, 1990, p.193), Théberge (1997) demonstrates that the commercialisation of digital musical instruments and tools designed to manipulate audio are "part of the broader phenomenon of consumerism" (p.5).

As a form of consumerism, access and ownership of musical tools is distributed unevenly across musicians from different backgrounds and wealth. The quote from Annie Errez – veteran DJ and producer from a working class background – in the introduction to this chapter reveals that by the mid-1990s she had little access to musical equipment and personal computers. The prices of digital musical instruments and recording equipment were falling since the 1980s, but by the late 1990s they were still mostly unaffordable for a teenager from a working class background like Errez. Many Slovenian musicians mentioned similar financial difficulties in having access to musical equipment, and even those from wealthier backgrounds recall the challenges they overcame to get hold of a synthesizer, drum machine, vinyl record, or whatever tool was affordable. Take the case of vinyl records as an example. One Slovenian veteran DJ recalled joining a group of peers in Ljubljana to import twelve-inch dance music vinyl records. Pooling resources allows them to lower the costs of each record, and as he explains:

> the group was made for making it easy for us to order, and so we could pay less for the shipping. Some people in the group don't care. I mean, my crewmates, they all had steady jobs and stuff, they didn't care about these 5 euros [per record] for shipping. So when there are orders for like 200 euros, or 300 euros of vinyl, they don't care about the money for shipping. But I could buy more records this way, divide the cost, and get to know what other people were buying too.

Dedicated hardware for music-making was much harder to come by, and was considerably more expensive than records and turntables. This was true in the UK, but Slovenian musicians faced arguably more serious challenges because of economic disparities, difficulties in importing, and higher prices. Alan Roposa (mid-30s) started making EDM in the early 2000s, and he was only able to buy music hardware after an incident when he lost his driving license because, in his words:

> I got caught. Well, because I was stoned [chuckles]. Aaand, you know, what at first seemed like a bad thing, it turned out it was the most best thing in my life because this way I could sell my car, and buy my first sampler – it was a Yamaha A4000. It was the first serious sampler I could buy, high-tech at that point you know, it was worth the whole car you know? [Chuckles] And I also bought my first synth, it was Yamaha, I think it was Yamaha DX5 or something like that.

The amount Roposa paid for the sampler and synthesizer indicates how expensive musical equipment used in EDM production was in Slovenia, even by early 2000s standards. The timing of purchase also adds to Roposa's misfortune: Yamaha's A4000 sampler was released in 1999, just a few years before the commercial release of DAWs (featuring software-based samplers), for a lower price.[66] In spite of the unfortunate initial circumstances, Roposa was able to quickly adopt a personal computer (PC) into his music production set-up. Initially he connected the Yamaha sampler and synthesizer to his family's PC via Musical Instrument Digital Interface (MIDI) (a protocol designed to integrate digital musical instruments), but after complaints from his parents and siblings he decided to move his home studio into a spare room in a friend's house who also produced EDM. He explained that:

> at that time, it was kind of a coincidence that one of my friends with whom I was already in a band, he bought himself like Pentium computer and some Korg, some old synths which had some sequencer stuff and sounded a bit

[66] The first version of Live was released by Ableton in 2001 with a retail price of £219. Propellerhead's Reason in December 2000, for US$399.

> more, it was a bit more this prototype of serious workstation. And we started to make music. Of course, he was a really techy guy so he quickly learned how to use the first Cubase [DAW], it was Cubase the sequencer.

It was hardly a coincidence that Roposa's friend also bought a computer and second-hand synthesizers to set up a home studio. By the late 1990s, these "relatively low-cost computer-based recording options" (Porcello, 2004, p.736) were becoming more popular and affordable to musicians while providing enough processing power and audio capabilities to produce music to professional-quality standards. Thus, by coupling his Yamaha sampler and synthesizer with a personal computer, Alan Roposa joined the growing ranks of "bedroom producers".

5.3.2 Bedroom Producers: Networked Computers, Audio Manipulation Software, and File Sharing

The term *bedroom producer* refers to music producers who make music in home studios, often composed with 'cheap' and affordable computers running specialised audio manipulation software (like DAWs, VSTs, and DSPs). To critics, the label "bedroom producer" carries negative connotations associated with low-quality audio made by uncommitted musicians, but enthusiasts praise its innovative, DIY, and low-cost aspects illustrated in the vitality, creativity, and resilience of grassroots EDM musicians. The conflict is evident in how Al Bradley (early-40s), an active veteran musician of EDM, describes his home studio:

> I don't have a big studio, and I know people that call it a studio but it's not a studio: I've got a computer, I've got a screen and I've got a little Roland Groovebox [drum machine], you know? [Chuckles] And that's what I use. But it's not a studio.

In spite of his minimal set-up, Bradley is a prolific EDM producer with close to 200 unreleased tracks and dozens of releases. As argued in section 2.3.2, bedroom cultural producers are consumers of technology and culture, and it is from this dual perspective that they navigate through changes in the landscape of digital cultural production.

The development of home studios follows closely the changes in how music is experienced by people, particularly the recent shift "from consumer electronics (CE)

to information technology (IT)" (Hesmondhalgh and Meier, 2017, p.1). In the case of grassroots EDM musicians the shift from CE to IT has affected how they listen to music, as well as how they make it, as evidenced from the popularisation of computer-based home studios. The development of contemporary home studios owes much to what Cole (2011) defines as 1990s "project studios". According to Cole, project studios "permitted musicians to record high quality music at home", yet "still required a fairly large capital investment", thus "the computer-based studio not only drastically reduced the cost of high quality recording, but substantially decreased the gap between 'home' and 'professional' recordings" (Cole, 2011, p.450). Further decreases in the cost of musical equipment, personal computers, and audio manipulation software from the late 1990s onwards have contributed to increased access to tools of music production to grassroots EDM musicians. Matej 'Kleemar' Končan, a producer in his mid-30s, reflected on the changes brought about through affordable tools to write EDM. He explained that:

> ten, fifteen years ago it was much harder to make music than nowadays because now you have computers, which are capable of everything… It's capable of processing all the stuff that you need for music and effects for making electronic music. [Back] then it was different, you had to have a soundcard or some kind of recorder set or something… You had to invest in equipment to make music, so I decided to do that. Started with a sampler, an audio card, and slowly started to make my own music in 1999, 2000.

Končan's comments reiterate the obstacles described previously by Alan Roposa, who bought a sampler and synthesizer after selling his car. Both emphasise that by the turn of the millennium, computer-based technologies for audio manipulation allowed them to jumpstart their musical production. But while their explanations emphasise the role of personal computers, two other technological developments also played important roles. The first has been mentioned, software for audio manipulation because "this is what separates the laptop in music from its function as a business machine, word-processing device or means for sending e-mail" (Prior, 2008, p.920). The second are digital communication networks (primarily those using the internet infrastructure) and the ease with which digital information circulates in them. The combination of these elements – networked PC running audio software – helped grassroots musicians to

write and circulate EDM, as well as software, samples, and (as examined in section 5.2.1) educational information about EDM.

Individual home studio set-ups vary greatly and an in-depth examination is beyond the scope of this work. However, one particular set-up is worth mentioning for its popularity and flexibility: the networked laptop loaded with audio manipulation software, which at its most basic operates as a portable 'home studio'.[67] Laptops are the most common choice for travelling musicians because they offer a good balance between processing power and portability, and allow musicians to write and perform using the same set-up. Danny James (late teens), an aspiring professional DJ and music producer praised the portability of his set up:

> I usually just have my bag with me everywhere and if I'm out with, I don't know, I could be out with friends on a day and then I think "oh, that's a good idea" I just had a good idea in my head and then quickly put into Logic [DAW]. It takes 2 minutes, there's nothing. It's not like it was years ago when we had to like set everything up for ages before you could start to write things down. I mean, even on your phone now, it's easy as that. Like Garage Band on your phone, just put in a little idea, export it to Logic and then your idea just expands from there. Just a lot of things like that.

Logic, mentioned by James, is a DAW owned by Apple aimed at music professionals (whereas GarageBand is their entry-level counterpart). The increased portability and processing power of computers have contributed to facilitate grassroots musical activity, but they would be useless musical tools without audio manipulation software. DAWs, alongside Steinberg's VST audio plug-in software interface and other third party DSPs form the backbone software suites of computer-based studios allowing personal computers to emulate the capacity of physical studios to produce music.

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[67] Internet connection is extremely useful, but technically not required as software and samples can be loaded by other means (via USB, CDs, SD cards). Devices for audio reproduction are also important, and musicians rely on hi-fi headphones for portability, and studio audio speaker for audio monitoring.

For the past fifty years software for audio manipulation has been used to make music, yet, with few exceptions, they remain "a neglected topic in social studies of music" (Prior, 2008).[68] Audio manipulation software has had significant impact in grassroots EDM production. Prior argues that:

> the growth of music software applications in the early 2000s heralds one of the most dramatic transformations in music. There is no action, practice or convention that has been untouched by this growth, from recording, mixing and mastering right through to listening and marketing (2008, p.922).

Developments in software for music and audio manipulation have brought cheaper and more accessible tools, as well as lower entry-level requirements for aspiring professional musicians. However, the costs of licenses can be a barrier for grassroots musicians.

The adoption of unauthorised *cracked* versions of software is a major contributor to the popularisation of EDM production by grassroots musicians. As commercial products, software for audio manipulation is available under license, but grassroots EDM musicians more often than not use cracked copies. Cracked software is a modified version of the original in which features deemed undesirable by the cracking team – including copy protection, requirement of serial numbers, pay walls, and the need for purchasing commercial licenses – are bypassed or removed altogether.[69] Cracking software is illegal and its use by professional musicians is controversial in the world of EDM, yet producers across the casual-professional spectrum have largely embraced it for the benefits provided by easily available functioning software for little

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[68] Exceptions according to Prior (2010) include Durant (1990), Théberge (1997), Richardson (2005), and Ayers (2006). Bougaïeff's (2013) doctoral thesis provides an interesting insider's perspective on the use of MIDI controllers and Ableton Live by minimal techno DJs and producers.

[69] Cruise and Goode (2006, p.173) argue that cracking teams are motivated by the challenge to remove copy protection from the original software, and that while social participation is rewarding, it is not a significant factor.

or no cost. When asked about the ethical aspects of using cracked software, a young aspiring professional EDM producer answered:

> it's one of those things that is kind of a grey area. The companies that make these plugins they say they *know* people do this, they say that it's not… they say that if these people then go on to buy the ahm [clears throat] the full product when money becomes available, they say that that in their eyes is, is, not bad. Of course they prefer people to *buy* them. But it's that thing you know, when you're starting out and you don't make money, it's *very hard* to be able to get a hold of.

His answer reveals the dilemmas beginners and aspiring producers face with regards to software and licenses: in order to make music on a professional level they rely on professional-grade tools that are largely unaffordable to musicians without the material resources necessary to fund their musical practices (as discussed in section 4.3). Musicians on the casual side of the spectrum often justify their use of unauthorised cracked copies because of the cost of licenses – which when added-up can reach thousands of pounds – and because they use them for non-commercial activities. Underlying their justification is a moral dilemma based on a lay notion of *fair use*.[70] In the words of Vid Vai, an aspiring professional producer in his mid-20s, his software:

> at the beginning, they were [cracked], but I actually bought the original Ableton about a year ago. It was because I was already releasing music, and… The thing is, I think you could never get caught in this kind of music, except if somebody… if you had a big studio and made a business out of it, recording for other artists. But anyway, I felt it was a proper thing to do, to give something back to the developers, because they made some amazing software, they allow you to express yourself so it was a fair thing to do.

[70] Not to be confused with fair use as defined in copyright legislation, which, in simple terms, includes copying or "transformative" use of copyrighted material for the purposes of education, parody, commentary, or criticism.

Vai's justifications for use of unauthorised cracked software leverages the benefits of low-cost and creative expression with a sense of *fairness* defined by non-commercial use. In other words, the use of unauthorised cracked software is justified under the assumptions that the potential damage to rights owners is acceptable if limited to personal use, and as long as the producer does not profit from it. In spite of this dubious justification, some of the wealthiest DJs and producers in mainstream dance music have been known to use cracked software (Edgerly, 2013; Tost, 2015). The ensuing controversy within EDM circles can be understood as a violation of the sense of fairness, as described by Vid Vai. Moreover, the controversy attracts unwanted attention to a widespread practice that is illegal and highly beneficial for grassroots EDM musicians, thus putting it at risk. The use of cracked software by professional musicians can also be seen as a signifier of subcultural capital and a marker of grassroots authenticity – it implies the professional producer's on-going allegiance to grassroots ethos and its *modus operandi*. The adoption of cracked software by EDM musicians illustrates the widespread circulation and use of unauthorised music software among musicians, and is evidence that it has helped to open new opportunities for musicians who want to make EDM, resulting in an increase of grassroots EDM production on a large scale.

The scale of circulation of cracked software via digital communication networks by grassroots musicians hints at the importance online networks have to contemporary grassroots EDM production. Using the internet infrastructure, musicians circulate software through peer-to-peer file-sharing networks (including BitTorrent and Direct Connect), file-transfer protocol servers (FTP), file-sharing websites (like MegaUpload, DropBox), and a host of private networks. Thus, online circulation facilitates music and software sharing, dramatically increasing access to the tools of music production by grassroots musicians. A participant (late-20s), commented on his difficulties in obtaining software before having fast internet-connections. He explained that his first copy of the DAW Reason:

> was really hard to get back then of course. It was on 6 CDs and no computer could handle it – of course, if you didn't have a good computer and stuff. But I asked him to give me a copy, so I had that copy for one year because he was always sceptical. He got this copy from a friend who downloaded it and told him, "don't give it to anybody, don't share it", but he eventually

> shared it [chuckles] because I was a pain in the ass, "c'mon give it to me!" like to see how this shit is great, you know?

Grassroots EDM producers benefitted greatly from cheaper, affordable, and powerful computers, as well as the flow of information through the internet. And producers were not alone. DJing was also undergoing significant changes as music in digital format flowed with ease and speed, and DJs adopted devices for digital music (re)production in their live performances.

5.3.3 Digital DJing: Digital Turntables, Laptops, and Computer Networks

Digital DJing is a broad term used to refer to a set of DJing practices in which DJs mix tracks using devices to manipulate music in digital format. As used here, the term digital DJing is intentionally broad because there are numerous ways to mix tracks using digital devices, which include, but are not limited to, digital turntables (Pioneers' CDJ with CDs and XDJ line for audio files such as MP3s, WAV, and AIFF), laptops or tablets connected with controllers via MIDI, vinyl-simulation kits such as Serato or Native Instrument's Traktor (which offers the 'feel' of vinyl for the DJ but manipulates and reproduces digital audio), and other DJing equipment (Traktor S4, Pioneer XDJ R1) that conflates all the required functions needed to mix tracks into one unit. In other words, digital DJing sets aside the "wheels of steel" and vinyl records in favour of hardware that allows DJs to perform live, manipulating music in digital format. Figure 4 shows an example of a DJ booth in a small independent Leeds venue equipped with an array of DJing equipment.

Figure 4. DJ setup, with turntables, CDJs, and laptops (Source: author)

The common denominator of digital DJing is that the audio signals are generated and manipulated from a digital source, mixed according to the musician's objective (transitions between songs, mash-ups, looping), before being reproduced by the sound system. But while the principle behind digital DJing is simple, it is a flexible and powerful creative tool, and is associated with a series of conflicting values and nuanced changes in practices in the world of grassroots EDM.

The emergence of digital DJing in the mid-1990s is associated with the development of digital turntables. Rather than a radical break with DJing practices developed during the late 1970s – when DJs relied on turntables to synchronise records and transition between them using a multi-channel audio mixer – the first popular digital turntables (like Pioneer CDJs 500, released in 1994, and 100S in 1998) were designed to emulate the capabilities of their vinyl counterparts.[71] On a basic level the principles guiding DJs performing live with vinyl records or digital files follows very similar principles: DJs select tracks, match the tempo of the incoming track with the one that

[71] Later models such as CDJ-2000 Nexus 2 released in 2016 provide a large number of features that pushes the concept of digital DJing beyond mixing two tracks. However, at the grassroots level, these more advanced functions are rarely used, and the price tag may be partly to blame – at a little under £2,000 each, they are almost four times the price of the entry-level CDJ-350B.

is being played, and transition between them by synchronising rhythms and tempos. On this level, the main differences are related to the affordances of the media used to (re)produce the music.

The varied experiences EDM musicians have with music in digital formats and in vinyl records illustrate differences according to the media used, and these are not confined to the technical realm. Casual DJ Pete Johnston (early-30s) reflected on DJing with vinyl records in his early days and why he changed to DJing with a laptop:

> I think it's a natural progression in technology. It's happened down the ages obviously, with everything, and vinyl is such a purists' choice you know? It's got the classic sound. There's something really nice about holding a record, putting it on and obviously collecting, and seeing all the sleeves, and it's such a personal thing. But it's just not viable in the modern age, I think. As a DJ or as someone who wants to play a party or whatever, it's just so heavy and… precious. I've got a lot of friends that have left vinyl [records] in clubs and it has been stolen, or left it in a taxi and they've lost it forever. And it's like 20, 30 years of collecting, and obviously hundreds and hundreds of pounds. The progression to CDs is something that makes it much easier, much lighter, much cheaper, but it takes away the magic of having the original setup and the records. And then… obviously now we're progressing to MP3s which is even easier […] I think it's just, yeah, naturally everything in life progresses, technology-wise. For me personally I prefer mixing on vinyl, it's more of an art form, but I'm loving the fact that you can do it with MP3s now, so I can chuck my MIDI controller in a bag and cycle to someone's house and have a full collection of music. It's incredible.

Johnston's previous experience playing with vinyl provides the backdrop to his shrewd analysis of the digital DJ experience, and informs his evolutionary vision about technological development. From a pragmatic standpoint he praises the benefits of the affordances of digital files – easy access, widespread circulation, reproducibility for very low cost, compact size and large collections – and the computer-controller hardware set-up – lightweight, portable, mass storage. However, he also longs for some of the characteristics associated with vinyl records, including sonic aesthetics, visual references, collectability, the "ritualised" act of setting them on the turntable

before playing, and an overall affective relationship developed with these objects.[72] Underlying Johnston's view is an ideal of technological innovation as an unstoppable largely positive evolution – a characteristic of popular utopian deterministic views about technological developments (Mosco, 2005, pp.2-3). From an optimistic angle, Johnston's praise of MP3s highlights the benefits of 'immateriality' of digital information (insofar as it is dissociable from the physical objects that stores it), and reinforces the benefits associated with the circulation of digital music through the internet.

Grassroots musicians use a wide range of online sources to download music. Websites and online platforms, including social media, UGC, and online music retailers, are among the most popular and invaluable sources of music for digital DJs. Yet, many participants do not pay for all the music they download. When asked about the source of his MP3s, a participant admitted:

> I usually just download them for free because I'm very very skint at the moment and there's no other way I could buy it.

Will D'Cruze (early-40s) also downloads music for free, but is careful to find authorised sources. He was adamant about it, reiterating: "I will not torrent. I fucking I won't do that shit." His principled stand informs his search for music, and he explained that recently:

> I've tapped into quite a good underground electronic vein and it's where I get a lot of my stuff now cause I'm a student and I can't afford vinyl, now I cannot afford [to buy] MP3s… most of the stuff I get is free, and that is through following the right groups on Facebook.

The importance of music circulated online is magnified by the reduction of brick and mortar record stores – in the UK their numbers hit a low in the late 2000s (Britton, 2015). During fieldwork neither Leeds nor Ljubljana had a specialised dance music

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[72] See Marshall (2014) for an interesting discussion about music collectors' differing views about analogue and digital music formats.

record store. Since then one small dance music record store has opened in Leeds (Paula's Records) but grassroots EDM musicians still largely rely on online purchases.

Digital DJing opens up new ways to manipulate audio and play music that challenges traditional vinyl DJing practices, and in doing so it has sparked backlashes and criticisms from some well-established groups of veterans within EDM cultures. Laptop DJing, or software DJing, as some would have it, is largely criticised because it is seen as a facilitator, a 'shortcut' to DJing; as if the technology takes over the work of the DJ, undermining the "art of DJing". This is no luddite backlash, but rather a defence of traditional values of disc cultures and the meanings associated with objects (turntables and records), rituals (selecting records, loading them in a crate, setting down on the platter), cultural signifiers (the 12-inch single as the central cultural reference) against perceived threats. In some extreme cases, such as "vinyl-only" spaces, the celebration of traditional values and practices associated with disc cultures also operates as "defensive exclusionary networks" (Christopherson, 2008) (examined in section 4.2.2).

The debate about beat matching, the act of matching the tempos of songs, provides a glimpse into the intricacies of tensions between digital DJs and traditional vinyl DJs. Writing about Native Instruments' (NI) approach to designing products for digital DJing, Rothlein (2016) explains the problem:

> DJs have always been some of NI's most conservative customers, from the early days of Traktor through to their current offerings, and [the new product] Stems seems almost perfectly pitched to ruffle their feathers. The format implies a move away from manual beat matching, a skill which for many people distinguishes 'real' DJs from people who are just pressing play.

To understand the conflict we need to unpack the technical skills required to beat match and its cultural meanings. Beat matching refers to the skill DJs need to synchronise "two records to play at the same tempo" (Brewster and Broughton, 2002, p.48). *Manual* beat matching requires DJs to listen to two tracks simultaneously, identify how their tempos differ, and make manual adjustments in the rotational speed of the record until the two beats match. While simple in principle, it takes considerable

time and serious practice to fully master manual beat matching (see the quotes from Bera and D'Cruze at the start of section 5.2.2). Doing it well is a very important skill for DJing, and as such it is laden with subcultural capital within DJ circles. However, today most digital turntables and computer software used in digital DJing have algorithms capable of automatically synchronising the tempo of tracks – the infamous and controversial "synch button". These synch functions drastically reduce (or depending on the efficiency of the algorithm, eliminate) the need for manual adjustments in beat matching. Thus, because the skill is important to DJ with vinyl it has high subcultural capital, and DJs who use assisted synchronising are often looked down on. In the words of a bartender and casual EDM musician who worked at a "vinyl-only" bar in Leeds, "if you don't play records you're not a DJ". The debate about skill and subcultural capital associated with beat matching is clear in the next quote by Mate Galic, chief technology officer of Native Instruments (NI):

> I really don't get why people out there think that DJing with two turntables to sync up two records is worth more than playing with a computer and doing a more sophisticated performance… Of course it takes some time to sync two beats, but why are you trying to sell this to me as a defining standard for a culture? I don't buy into this (Galic quoted on Rothlein, 2016).

Galic challenges the value manual beat matching still holds on DJing culture, and he embodies the ethos of NI, a company pushing the boundaries of how EDM is made and played. Galic rightly questions the emphasis on beat matching as a "defining standard" because there is more to DJing than matching tempos, but by dismissing the cultural implications associated with it he runs the risk of oversimplifying the issue. Out of the fifty chapters in *How to DJ Properly*, Brewster and Broughton (2002) – both veterans of 1980s acid house – dedicate only one to beat matching. The other chapters cover significant topics such as how to: "buy music and equipment", "warm up a dancefloor", "read a crowd", "choose the next record", "build a music collection", "graduate from the bedroom", "get paid", "throw a great party," "put a mix on the net", "make a track", "be a girl," "be famous", and "be great" (2002, pp.8-9). The wide range of topics, many of them non-technical, indicates that beat matching skills are important, but they are a technical matter embedded within a much larger set of skills and knowledge – clearly there is much more to DJing than beat matching.

The emphasis on this particular skill reveals an attachment to tradition, the value of scarcity and DJing skills in subcultures, as well as an effort to keep practices alive and meaningful in the face of technological and cultural changes. Nevertheless, debates about the synch button provide evidence of the underlying struggle for power and prestige among EDM musicians, examined in the next section.

5.3.4 'Let's Get Physical': Records, Hardware, and Workflow

The debates about beat matching illustrate the kinds of subcultural values associated with technologies for EDM and its use. One of the key debates about technology in EDM revolves around the use of analogue or digital hardware, as well as musical media formats. The celebration of vinyl epitomises the debate, with DJs justifying their preferences on the basis of the media's physical properties, affective associations, traditional subcultural value, and familiarity with the format as well as the skillset acquired and needed to perform with it.

Until the development of digital musical formats and supporting infrastructure (for circulation, reproduction, and performance), vinyl records remained unrivalled as the format of choice in EDM, thus becoming a fundamental symbol in dance cultures. In her analysis of vinyl records in 1990s dance culture, Sarah Thornton (1995) argues that the 12-inch dance music single was "the pivot around which dance cultures have come to revolve" (pp.65-66). Records are so imbued with meanings of *authenticity* in club cultures that Thornton uses the term *disc culture* to describe how in "a distinct high-tech folk culture" the "twelve-inch dance records in the hands of a mixing DJ are, quite literally, social sounds" (Thornton, 1995, p.66). More recently, Bartmanski and Woodward (2015) demonstrated that in spite of the popularisation of digital DJing, vinyl records still maintain high subcultural value in influential urban music

cultures, such as the techno and house circles in Berlin.[73] The coexistence of analogue and digital musical formats in EDM is evidence that:

> the adoption of CDs, MP3s and Ableton Live lends emphasis to this idea of DJ culture as fluid and evolving, while the continued use of vinyl demonstrates the way technology can be bound up with perceptions of skill, aesthetics and authenticity (Montano, 2010, p.415).

Veteran aspiring professional techno DJ Bernardo 'Bera' (late-30s) is one of those who has not lost the enthusiasm for vinyl, and the main reasons he cited include his skillset, aural aesthetics, cultural authenticity, and affective qualities. Moreover, he emphasised the physical properties of records, which alongside the tactile and sonic qualities of vinyl records, leads him to comment that:

> it is very charming to play with records. You arrive with your record bag, you take [the records] off, and I think this is very much a spectacle. In second place I love records, I collect them. I have a lot of stuff, electronic, rock, hip-hop, jazz, blues, a bit of everything.

When performing in clubs, Bera plays mostly techno and exclusively with vinyl records. Vinyl enthusiasts like Bera recognise the symbolic value of records, and they also cherish them because their physical properties provide musicians with richer multi-sensorial information, including smell, touch, and visual references (through sleeves, labels, and details about production). Furthermore, records are often connected to personal history – for example, a time and moment where a record was heard, bought, played, or shared – adding to increased affective associations. Physical properties of records also add to the *spectacle* Bera refers to, and manipulating records is central to the performative elements of DJing with vinyl, which includes hauling a crate of records into the club, sifting through them to select the next track, laying them on the turntable, and moving it to beat match manually. All of these movements have

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[73] In *Vinyl: The Analogue Record in the Digital Age* (2015), Bartmanski and Woodward also explore vinyl records' characteristics as audio format and medium, its physical properties, value as commodity, and its significance as a cultural object and icon.

become iconic in the life of the EDM DJ who plays vinyl, and are signifiers of authenticity in traditionalist EDM grassroots circles, including the minimal techno clique Bera circulates in.

The rise of digital DJing has offered an alternative for DJs, and with it challenges to the hegemony of vinyl as a cultural symbol. Much of the debate brings to the fore issues related to the physical properties and affordances of records. For example, legendary DJ and producer Theo Parrish (Scion AV, 2011) reflects on how the affordances of records and the 'immateriality' of digital music, affects DJs' live performances:

> traditionally DJs would take years to amass a collection of music, and one of the first things you learn, when you get your first crate of music, was to learn all of the records in that crate. Back to forth, front to back, so you would know it intimately. Now, with the advent of technology these programs get designed and whoever designed these programs has missed a major part about what DJing is about. And that major part – more than mixing – is song selection. In my contracts I require a four-hour set. I bring almost 12, 15 hours of music, so at the point that I'm there, I'm reducing all the music I have at that point with me down to 4 hours. That's happening on the fly, right there. Now a guy comes up with a laptop and he's got everything. "Hey, look, I got all these songs. I can play anywhere, I can do anything" [Sneers]. But you get up there with a guy who's been playing for years, and knows his records, he'll burn you every time. There's no way you can beat him (Scion AV, 2011).

Parrish raises two valid points about the physical properties of musical formats and DJing. First, regardless of the chosen format, good DJing requires careful selection and intimate knowledge of the music. And second, that the affordances provided by large data storage on laptops allows access to vast collections of music that are not equitable in vinyl. In his critique of laptop use by DJs in live performances, Parrish seems to imply a causal relation between a lack of intimate knowledge about music selection and the affordances of music in digital format. It is true that many musicians (specially inexperienced ones) find it challenging to manage extensive collections of digital files, but the difficulty does not preclude one from having deep intimate knowledge of their music collections and the ability to operate at the highest level, as

attested by the large number of world-class DJs who have substituted vinyl records for digital files. Parrish is right to praise DJs' deep knowledge of their musical selections, and his sneering at laptops used for DJing is understandable because the affordances of these devices present a challenge. But in defending deeper knowledge associated with the use of vinyl he is also reinforcing notions about authenticity and subcultural value associated with records, and the overemphasis on these meanings can have negative consequences for grassroots DJs.

Traditional subcultural values associated with vinyl can undermine the efforts of those who do not play with records. This is a problem for grassroots musicians because, as argued previously in this chapter, digital technologies (networked PCs, audio manipulation software, and music in digital format) are associated with increased access to the tools of music production and lower entry-levels for grassroots musicians. Therefore, reinforcing the symbolic function of vinyl has the potential to erode and nullify these benefits. While the value systems of disc cultures are meaningful and speak to important aspects in the community – including individual and collective identities, authenticity, and cultural resistance (Thornton, 1995, pp.4-6) – they are also informed by internal conflict and tensions. Farrugia and Swiss (2005) explain that:

> reservations about adopting new DJ technologies often stem from the fact that advances in digital music technology threaten the existing order of E/DM DJ culture, an order maintained by numerous gate-keeping practices, including the ideological enforcement of standards for discerning the value and authenticity of certain DJ practices (p.31).

Anxieties about technological innovation are arguably not a recent phenomenon in the history of EDM, and the "no-laptop" policy adopted by some bars and clubs specialising in EDM (Beaumont-Thomas, 2016) is its latest manifestation. While these policies rightly value sound quality and better interaction between DJs and audiences (unencumbered by a computer screen), the ban on laptops and in more extreme cases digital turntables reinforce exclusionary gate-keeping practices. The Slovenian aspiring professional DJ and producer Kristjan Kroupa (mid-20s) recognises the symbolic power of vinyl to EDM cultures and also cherishes the physical and sonic properties of the format. However, he is critical of the way

discourses about the authenticity of records are used by well-established DJs to undermine the efforts of newcomers. In his articulated critique of power, Kroupa explained that in Ljubljana the aura of authenticity associated with vinyl is not overemphasised by those:

> who are also making music. It's more from the guys who are like… playing, who are DJing, and from these guys who are like DJing for 15 or 20 years you know? These guys are very, like, "oh, he's not DJing from… with vinyls, he's playing from digital, it's much more easier, it's so much simple, he's lazy", or something like that. But from my perspective it was just because playing digital was the only option I had. It wasn't… I didn't choose to be like lazy or something, it was the only option.

His experiences with world-class EDM musicians inform his critique, because:

> when I was in Tokyo, and in Sónar, these people produce, and even the DJs, are so much more open-minded. They say, "it's not the platform that you're playing, but it's just about the music. It doesn't matter if you play it from Traktor, CDJs or vinyl, or Ableton, it's just the music you play and how the people react to it and how *you* react to it. It doesn't matter the equipment.

His references to Tokyo and Sónar are crucial to understanding Kroupa's critique. In 2015 he was flown to Tokyo to participate in the prestigious RBMA, and, a year later, as a DJ in Sónar, one of the most influential electronic music and arts festivals in the EDM world. He is only the second Slovenian to have taken part at RBMA (fellow participant Janus Luznar is the other, twelve years before). Until being selected for RBMA, Kroupa was largely unknown within the small circle of well-established EDM musicians in Ljubljana, and even though he lives only half an hour away he still considers himself an outsider. Kroupa argues that well-established DJs use the symbolic meanings associated with vinyl for self-interest, and his comment about his experiences at RBMA is a sneer to what he sees as provincial elitism adopted by some within the (small) world of EDM in Ljubljana. Furthermore, Kroupa's position is also a defence of creative expression and new sonic aesthetic possibilities via digital technologies, and his celebration of creativity – which he associates with the use of these same technologies – also questions the interests and status quo of those who use the subcultural value of records as exclusionary gate-keeping.

The richness of participant's experiences with musical equipment (dedicated devices and hardware) adds another layer to the debate about subcultural values. Their experiences extend into notions of *workflow* informed by their musical practices. The term workflow refers to musicians' actions while making or playing EDM. It is drawn from the vocabulary used by participants to explain how they make and play EDM, and takes into account that when doing so musicians become part of larger complex systems. It follows Théberge's (2017) suggestion to analyse the various components of musical production as an "assemblage" comprised of instruments, objects, practices and social discourses. Thus, workflow encompasses actions in the creative sphere – writing music and performing live – as well as the mundane – connecting cables, arranging the layout of equipment, and managing digital files. Drawing on the concept of non-human actors in Actor-network Theory (Latour, 1996), the notion of workflow used here takes into account that the affordances of non-human actors (including dedicated devices, computers, cables, MIDI, software) have agency and significant consequences in grassroots cultural production.

The examination of participants' workflow, alongside the rationale employed, reinforces the importance of the physical properties of the devices used by musicians. Physical properties are fundamental in learning, and Théberge (1997) suggests that musical style, physical properties of instruments, and learning processes are interconnected – in his words "the particular attachment so many musicians have to specific instruments, [and] the importance they place on the acquisition of skills and execution" can be threatened when musicians are "confronted with new technology" (p.168). Using the example of drummers learning how to use drum-machines, he explains that the discomfort they feel initially is not "primarily an unfamiliarity with the functioning of the device", but rather partly by "the apparent loss of that entire 'field' of physical/spatial/aural potential, so intimately tied to their sense of musical style and purpose" (Théberge, 1997, p.168). These challenges are also present when making or playing EDM. Take the case of Will D'Cruze (early-40s) as an example. Will learned how to DJ during the 1990s using vinyl records – "because that was what was available at the time" – but since then he has adopted a vinyl emulation set-up. DJ and producer Alain Macklovitch, better known as A-Track, explains how vinyl emulation works:

> the record that you put on the turntable has a tone rather than having music. But that tone has a time code that a computer can read. The turntable first sends the tone to the computer. On the computer you choose what song you want to assign to each turntable. On the computer you say, 'My left turntable' — which is just a virtual turntable — 'will be playing this Kanye West record.' The computer receives the tone from the record, which says, 'Right now the needle is at 1:32 into the record moving forward.' So the computer produces that music and sends it back to the mixer and then once it hits the mixer it becomes the same as the traditional setup. It goes back to the signal path where the mixer receives music from the turntables and mixes them a certain way (Macklovitch in Ganz, 2011).

The major benefits of vinyl emulation set-ups are familiarity with the skillset and hand movements used when DJing with vinyl records alongside the affordances of music in digital format (large song selections, flexible digital formats, and low-cost online circulation). D'Cruze's current predilection for digital formats is not due to the aural qualities of vinyl, but rather his skill in handling records and keeping to a familiar skillset adapted to a new workflow. The combination of skills and workflow is so embedded in musicians' practices that when under the pressure of auditioning in a club recently he:

> took vinyl. I fall back to basics because, I don't know, it's like putting comfort slippers on, I can rely on my skills in that place, I know I am not going to let myself down. Even on the worst fuck-ups, I'm good enough to be able to get out of it quickly and people will never know any different. That's when you know you can cut it live do you know what I mean? Getting out of mess-ups.

The workflow associated with vinyl records offers D'Cruze familiarity, the "comfort slippers" he refers to, but when at home, his vinyl emulation set-up allows him to adapt his skills with records in a workflow that greatly expands a wide range of music in digital format. The transition between vinyl and emulation requires adaptations in workflow though, and the most important are related to both DJing and "the process of building a music library", which Macklovitch explains are in:

> the tiniest reflexes that go through your mind when you're playing a set and thinking of your next songs — these little mini thought process that you're

> not even conscious of — are completely different when you're looking through a list of titles on a computer compared to physically flicking through records with album covers that tell you what the song is before you even have to read the full name (Macklovitch in Ganz, 2011).

Workflow is also important for EDM producers. The skills and abilities required in operating musical equipment orients Otis Farnhill's (late teens) techniques for composition, but his tool of choice is the networked computer. Ditching analogue synthesizers and MIDI controllers, he relies on his laptop,

> because I've used the mouse so much, the trackpad actually, I kinda… that feels quick to me. I suppose that for people who were trained in music theory in keyboards still find it a lot quicker, but for me it's just easier to click things straight away.

Having learned how to make music exclusively in his computer has shaped Farnhill's skills and workflow, but his predilection for the trackpad is an exception, and most participants revealed a preference for interfaces that offer more controls at their fingertips, such as dedicated devices, MIDI controllers, and analogue devices. Richard Fletcher (late-20s) explained:

> I just got a point where I realised that a lot of the sounds that I wanted to make, and the workflow that I wanted, I wasn't capable with a computer just using a mouse. I wanted to be able to have loops running where I could be constantly tweaking knobs and faders in real time, to get a little bit more, kind of, live expression out of it, if that makes sense, rather than everything being meticulously programmed with a keyboard and mouse, which I do still use elements of. I mean, a lot of the time when I'm structuring [a track] it will be very structured and automated, with quite strict parameters, but then there are some things what you just want to have a really live feeling.

As Fletcher mentions, the physical properties of devices are important for the workflow of EDM producers. Analogue instruments for EDM are associated with a greater sense of control, but as Xavier Bonfill (late-20s) argues, these features are also important when manipulating digital hardware (not to be confused with software synthesizers). When asked about his preference for analogue music hardware he replied:

> Bonfill: I use a lot of analogue stuff, but for me it's not as much important to be analogue or digital, it's more about the hardware thing.
>
> Interviewer: What do you mean by the hardware thing?
>
> Bonfill: Like knobs, and immediate manipulation. That's the thing. You don't care that much if that signal was produced by a tiny CPU or [analogue] voltage [controlled oscillators]. Yeah, I think it's the feeling of playing.

The tactile feel highlighted by Bonfill and the other examples of participants' workflow relocates the debate about vinyl (and analogue music hardware in general) from its cultural meanings to the practical sphere. For instance, when Kroupa criticises gate-keeping by vinyl traditionalists he emphasises the creative possibilities with other formats and how they facilitate grassroots cultural production. D'Cruze's use of vinyl emulation brings the familiarity of the skillset to the fore, and he cares less about individual records. Bonfill's remarks about physical manipulation suggest that the pressing issue for producers is more about control, and less the sonic characteristics of analogue devices.

Grassroots musicians have to consider the subcultural capital "*objectified* or *embodied*" (Thornton, 1995, p.11 original emphasis) in the symbols of dance cultures, but their workflow illustrates that cultural meanings take on different manifestations on their everyday activities. Workflow, as examined here, has the potential to question the symbolic power invested in traditional objects and practices of EDM by emphasising issues about control, creativity, and innovation. Furthermore, the relocation from symbolic meaning to pragmatic and mundane action (twisting a knob, selecting music from a folder of files) is in itself a critique of the established values of 'disc cultures'. This critique brings in aesthetic and creative aspects from the experiences of grassroots musicians to question the power embedded in tradition. Legendary techno DJ Dave Clarke summarises the debate about subcultural meaning and workflow by saying:

> for me the whole vinyl versus digital debate is done and dusted, the whole manually manipulating your turntable as opposed to a sync button, I think as a debate doesn't really matter anymore. You know, whatever makes the person happy (Clarke in Keeling, 2017).

It may very well be done and dusted among world-class professionals, but the debate *still* rages at the grassroots level.

5.3.5 From Selector to Producer: A Cycle of Abundance

Producers and DJs rely on each other. Producers need DJs to promote and circulate music to audiences, and DJs need music from producers. However, the relationship is marked by tensions, and Alan Roposa (mid-30s), who sits more comfortably on the producer side of the debate, puts it bluntly: “call me elitist or whatever, but I always considered kind of being a DJ a bit more inferior to being a producer and to make music”. Today the consensus amongst aspiring professional EDM musicians is that DJing by itself is not enough to build a career – in order to attract attention, gain subcultural capital, and to carve a niche, aspiring professionals *have* to *make* music. The Slovenian DJ, producer and record label owner Matjaz Zivko (mid-30s), explained:

> Zivko: We are in search of both [DJs and producers] because of our background. We really respect DJs that are good producers as well. It’s not a problem if it’s only a producer, but it’s a problem if it’s only a DJ.
>
> Interviewer: Why?
>
> Zivko: Because we are quite old school you know? And the time has changed so much it’s not enough to be a DJ, *only* a DJ. You can be a music digger, you can you be an amazing DJ, but you know it’s one in a million that succeeded in that way. And it’s not only about this, it’s that you understand the whole process. Because *I* know how much time you need, how much energy and how much… [exhales deeply] I don’t know how to say it… it’s *everything* you need to produce *quality* stuff. For me, for example, I didn’t… well, I went partying, a lot. But still I know that I have had sleepless nights in the studio, and still do man. Sometimes your friends are like “let’s go out” and I’m, “no, I’m in the studio”, and I was in the studio for 20 hours and I went to sleep and first thing [next day], not brushing my teeth but just went to the studio, back to listen what I done, you know? So *I want them* to experience everything like this, it’s important for me, it’s important for us in general.

Zivko's perspective highlights several aspects of music production relevant to grassroots musicians. First, greater access to music (including MP3s online) has lowered entry levels for DJs, but increased the difficulties of building a career exclusively based on DJing. Second, original music has high promotional value, and is a valuable asset in the battle for attention. Third, music-making is a valuable experience in understanding the intricacies of EDM, grassroots musicians' cultures of production, and the complexity of music-making as "labour-of-love" (explored in section 4.3), including the mixture of positive and negative aspects – like commitment, sacrifice, resilience, sense of achievement. And fourth, as a collective recognition of subcultural capital, a rite of passage, that marks the shared experience of music producers. DJ Bernardo 'Bera' (late-30s) confirmed that making music is not easy:

> Bera: I started to take some classes in music production but I gave up. I'm… I think I was born to be a DJ [chuckles] and I'll die a DJ.
>
> Interviewer: What did not work?
>
> Bera: Lack of patience [laughs hard]. Because here I feel very, it's not that I am, but I *feel* very lonely sometimes, so it's a bit boring not having someone to show [what you make] and it's tiring to do it for yourself all the time.

Not all DJs are producers though, and the emphasis given to music production creates greater incentives to do so, and adds more pressure on DJs to produce, which creates problems for musicians like Bera. As argued previously in this chapter (particularly in section 5.2), DJing requires more than playing records, having access to (rare) music, and the technical skills to mix tracks – good DJing is also about selecting and knowing one's music collection in-depth, communicating with the audience through music, and being able to read the crowd. In the words of one participant: "if each track is a word or sentence, DJing is like a language" requiring technical and cultural knowledge, as well as social skills. In the words of aspiring professional DJ Will D'Cruze (early-40s), the problem for casual and aspiring DJs who do not write music is that:

> the world doesn't care, it doesn't matter how good you are as a DJ, if you haven't got anything that the music industry can promote fuck off! They

> don't care! [Long pause] I mean, it's a bugbear for me, because, I mean, they are going to recognise me as a DJ based on something that isn't DJing! It's *production*! No DJing skills in there. And then I'm recognised as a DJ once I made a record? That to me is just backwards.

D'Cruze proudly subscribes to a radical vision of "the underground" which prizes creative freedom and a no-compromise approach to DJing as markers of authenticity and artistic identity. His frustration is understandable, and because D'Cruze's musical activities have little commercial appeal, the value of his commitment to DJing, sense of community, and determination are at risk of being unrecognised on a broader level. Thus, while changes associated with the growth of EDM have clearly facilitated newcomers into the world of DJing, the goalposts marking success and subcultural meanings about what it takes to be an EDM musician point to a more holistic approach, which includes music production.

One consequence of the increase of the value attributed to music production is that more music is being made, shared, circulated, and promoted. These conditions foster a *cycle of abundance*: increased amounts of recorded music drive down the value of the music available, which in turn increases the value of live music, generating further incentives for music production, which results in more recorded music being made, thus closing the cycle. As shown in the tensions between DJs and producers, the consequences are felt internally in the subculture of EDM. But they also have economic impact, and the Global Music Report (IFPI, 2016) offers some evidence in the form of the "value gap". Criticising the business model of UGC platforms (an issue explored early in the next chapter), the report argues that "as a result [of the value gap] payments to artists and producers are miniscule compared to the massive consumption on these services" (p.8). The next chapter examines the conflicts of interest between UGC platforms, rights holders, and users, and argues that even if the value gap were addressed in favour of rights holders, grassroots musicians would still be in a weak position.

5.4 Conclusions

The processes of learning, making, and playing music are intricately connected, and this chapter has examined how the practices and experiences of grassroots EDM

musicians have adapted as the pathways available for grassroots EDM production grew. Throughout the examination, the chapter analysed how developments in learning strategies, music-making tools, and musical practices provide opportunities and challenges for musicians across the casual-professional spectrum. In this concluding section I highlight the most significant aspects in grassroots EDM musicians learning and practices against a backdrop provided by broader issues about cultural production and related theoretical debates.

With regards to formal education, Born and Devine (2015) demonstrate that HE courses for EDM musicians have grown in the past decade, but inequalities in access to MT courses (particularly along the lines of gender and class) have yet to be addressed. Inequality is a pressing issue for formal music education because, as Oakley and O'Brien (2016) argue, the production and consumption of culture are intricately related, and cultural consumption is a structuring factor in later opportunities for education as well as in the labour force. Moreover, they suggest that in the UK, the emphasis on policies designed to foster cultural production (via the 'creative industries' discourses and initiatives) were unable "to deal with the de-industrialisation of the British economy, intervene directly into social problems, as well as producing cultural goods for consumption both at home and abroad" (Oakley and O'Brien, 2016, p.482). The combination of greater formal education for musicians, alongside the failings of cultural policies designed to foster job growth and better working conditions, have serious implications for grassroots musicians. Thus, while music-related work remains appealing for its promise of self-realisation and creative expression, the main problem of formal education for grassroots EDM musicians lies outside the classroom, as the job market remains highly competitive, offers poor working conditions, and is unable to absorb large numbers of formally-trained musicians.

Musicians of popular music have long relied on informal learning strategies (Toynbee, 2000; Green, 2002). These strategies are very useful within the world of grassroots EDM, and in the case of older musicians they were the only option in their early efforts. Casual musicians also benefit extensively from informal learning, as it does not require serious commitment and are available at low-cost. However, as shown in this chapter, serious and aspiring professional musicians have ambiguous relations

with informal learning strategies. For example, while self-learning is fundamental, it can be slow and frustrating without assistance from experienced musicians, and peer-support is not often available. This is not to argue that informal learning strategies are ineffective for serious musicians and aspiring professionals, but to highlight its limitations – as illustrated in the examination of participants' use of online tutorials, which provide useful information to troubleshoot problems, yet frequently offer a narrow window into the complex world of EDM production. These limitations challenge popular notions held by inexperienced musicians and uncritical commentators that overemphasise the usefulness of online platforms and information in digital format about EDM.

Increased pathways for music education have been accompanied by a growth of EDM production. The entry-level barriers for grassroots EDM musicians have fallen consistently from the 1980s onwards, with lowering skill requirements alongside cheap(er) equipment being complemented by socio-cultural conditions that foster cultural production and creative labour. In this context, musicians remain what Durant (1990) and Théberge (1997) describe as "producers of culture" and "consumers of technology". As a form of consumerism, access to the tools of music production is distributed unevenly, and the difficulties experienced by Slovenian participants illustrate the issue. Unequal access also negatively affects those who cannot afford to engage with musical activities, or face greater challenges in doing so, as the case of female musicians demonstrates (discussed in section 4.3). Furthermore, the consumption of technology by contemporary EDM musicians also includes considerable levels of software for music production (Prior, 2008, 2010), and these patterns of consumption accompany what Hesmondhalgh and Meier (2017) argue is a fundamental shift in the consumption of music in the early twenty-first century: from consumer electronics to information technology, with the latter being "the more powerful sectoral force shaping how music and culture are mediated, and experienced" (p.1). The examination of EDM musicians' widespread use of audio manipulation software indicates that within the world of EDM, software companies have become important actors in grassroots cultural production. The analysis of grassroots EDM musicians' use of software and hardware for cultural production follows the suggestion by Paterson et al. (2016) for more research on the impact of "the use of production software and hardware" (p.7).

There is a consensus among participants that it has never been easier and more affordable to make and play EDM. The analysis of bedroom producers and digital DJing supports this consensus, but only partly, because there are significant underlying problems limiting grassroots EDM production. Again, the case of serious and aspiring EDM musicians illustrates the issue: the use of music and samples downloaded without permission incurs potential legal problems, and because popular compressed audio files (like MP3) provide low(er) audio quality, using them for live performances can have negative consequences as the format is looked down on by audiophiles and professional musicians alike. Moreover, unauthorised music production software is readily available and grassroots musicians benefit greatly from it, but as musicians take their activities more seriously, paid registered licenses become desirable and potentially expensive assets. Experienced producers highlighted greater degrees of reliability (as in less frequent computer crashes), frequent updates (for security and new added features), and a sense of fairness. Banks (2006) examined moral and ethical values adopted by cultural workers, and the emergence of a notion of fair use based on moral, social, economic, and pragmatic values on the grassroots level of cultural production is an interesting development that warrants further research.[74]

Internal struggles in the world of grassroots EDM question optimistic notions about accessibility to cultural production. The examination of the subcultural values of beat matching and vinyl in traditional EDM circles revealed the symbolic meanings of techniques and objects, or, in the words of Thornton (1995), how "subcultural capital can be *objectified* or *embodied*" (p.11, original emphasis). The concept of subcultural capital draws from Bourdieu's cultural capital, and implies the notion of distinction and power struggle through cultural taste. The analysis of EDM grassroots subcultural capital emphasised power struggles, and contextualised the importance of traditional values as social aggregators and anchoring cultural references. The main problem for

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[74] The internal system of values informing the notion of fair use of unauthorised third party intellectual property is remarkable and warrants further investigation, but because it is not supported by current copyright legislation it offers no protection against litigation.

grassroots musicians dealing with these traditional (and locally influential) groups is that subcultural values can be, and often are, used as exclusionary gate-keeping forces. The examination of the subcultural value of manual beat-matching and vinyl records illustrates that they are both important for EDM (largely for practical and symbolic reasons, respectively) and in how they are used by gatekeepers to secure their positions.

The discussion about workflow offers an interesting approach to the debates about musical instruments and subcultural values in EDM. Participants' emphasis on workflow values the use of whatever equipment, tool, and technique are available to accomplish the desired goal. This holistic approach is useful for grassroots musicians, who historically have less access to tools of music production, and instruments, as Théberge (2017) suggests, can be better understood as assemblages comprised of several parts. Moreover, workflow also follows Green's (2002) observation that informal learning is unstructured, idiosyncratic, personal, and integrates all skills, including listening, composing, performing, and improvising throughout the process of learning, and as indicated by participants, when making and/or playing EDM. Moreover, the debate about workflow undermines traditional subcultural values by emphasising unrestrained creative expression. The argument has historical precedents in EDM (see section 2.4.3) and is an important theme in the design of new instruments and musical interfaces. Sergi Jorda (2017) argues that "an ambitious goal for any new instrument is the potential to create a *new kind of music*" (p.89 original emphasis), and these objectives can be hampered by traditional values that undermine innovation. He explains that:

> actually, most computer music performers still seem shyly reluctant to consider the computer as a regular musical instrument, but nonetheless, the computer is finally reaching the point of feeling as much at home on stage as a saxophone or an electric guitar (p.89).

The final section in the chapter considered how the current environment of abundance of music has impacted grassroots EDM musicians. The emphasis on music production is directly related to the incentives offered to musicians to produce music, including subcultural capital (rite of passage and deeper understanding of the world of EDM producers), promotional potential, and a valuable tool in the battle for attention. In

The Attention Merchants (2017), Wu shows how marketing strategies developed by the advertising industry during the twentieth century have been adopted by online platforms to capitalise the attention of users via advertising. Scholars interested in the intersection between promotion, culture, and society (Wernick, 1991; Nixon, 1997; Du Gay, 1997; Aronczyk and Powers, 2010; Meier, 2017) have also addressed the rise of promotional cultures and its consequences. The next chapter expands the examination of these issues in the analysis of how grassroots EDM musicians use online platforms to circulate and promote music.

Chapter 6
Circulating Music Online: Sharing and Promoting in SoundCloud

> The early 1990s were a time when many of the basic processes behind running a record store were unrecognisable from today – a time of fax machines spewing release lists onto the floor, of hours spent listening as distributors playing records down crackly phone lines, and of reps driving across the country in vans stacked with vinyl (Macdonald, 2017).

> Chance [the Rapper] gave [the mixtape] *Acid Rap* away for free with the full understanding that at his level, exposure was more valuable than potential sales. As a bubbling but still relatively unknown artist, he knew he probably wasn't going to move a lot of units. Free online distribution is cheap and easy and therefore a much better option for any rapper trying to further their career. The cash Chance will see for shows, licensing, and features from the success of *Acid Rap* is probably several times bigger than whatever he would have clocked on sales alone (Friedman, 2013).

6.1 Introduction

This chapter examines the circulation of music by grassroots EDM musicians via online platforms, and focuses on musicians' use of SoundCloud, a UGC platform widely used in the world of grassroots EDM. The questions the chapter addresses are:

1) To what extent have changes in music circulation associated with UGC platforms contributed to enhance grassroots EDM musicians' practices?
2) How do affordances of UGC platforms affect the experiences and practices of grassroots musicians who use them to circulate music? In other words, what are the benefits and challenges for musicians across the casual-professional spectrum when using UGC platforms to circulate music?

Music distribution is a key element for the recording music industry, and therefore for aspiring and professional musicians as well. We saw in Chapter 5 how vastly increased amounts of music available online affects values associated with music, and, in Chapter 4, how, in an environment of abundance of recorded music, its financial

value has declined, with revenue from merchandise and live music rising in importance as a source of income for the music industries (IFPI, 2016) and musicians alike. Leyshon et al. (2005) rightly point out that:

> the problems facing the music industry have not suddenly been manifested overnight, or even in response to on-line digital file exchange, but rather have accumulated over time in response to a set of broader cultural forces that have changed the role of music within society (p.181).

Yet, the authors add that the rise of the internet operated as a "tipping point" (p.180). Today, major record companies are still adapting to an economy where the consumption of music is increasingly shaped by the information technology sector (Hesmondhalgh and Meier, 2017), advertising-based revenue streams (Klein, 2009), and the value of promotion (Meier, 2017).

While current evidence points to a global upturn in revenue from recorded music, driven largely by online streaming services like Spotify (IFPI, 2016, 2017), grassroots musicians benefit little from it. On online streaming platforms like Spotify, revenue is proportional to popularity (number of plays), and distributed according to agreements and legal arrangements that favour rights holders and/or big music stars. Furthermore the decrease in potential revenue from recorded music circulated online has increased its value as a promotional tool, in a shift that emphasises attention as a form of currency for grassroots musicians (examined in section 4.3.1) as well as the business model of online platforms operating with ad-based revenue. Leyshon (2003) describes the phenomenon: "sociotechnical networks have destabilised the regime of governance that supports […] *copyright capitalism* by creating a series of *gift economies* where the products of those industries are given away" (p.533, original emphasis). Moreover, the widely accepted idea among musicians that "we used to tour to promote an album, now we make an album to promote the tour", reflects the increasing importance of promotion, and has notable consequences for musicians with professional aspirations. In this context, circulating music online operates as a form of promotion, as musicians strive to attract the attention of audiences by making their music available online, often for little or no financial reward.

This chapter examines the expanded role of online circulation and promotional activities in grassroots EDM production. It does so through an analysis of how EDM

musicians use the online platform SoundCloud. It argues that self-publishing via SoundCloud facilitates circulation of music by grassroots musicians, and that the logic of online circulation also functions as a form of promotionalism, also known as promotional cultures (Nixon, 1997).

The term promotional cultures refers to a widespread condition that shapes contemporary western societies (Wernick, 1991). It is deeply associated with "the techniques of promotion associated with modern marketing" (Nixon, 1997, pp.194-209) developed by the advertising industry in the late twentieth century. Drawing on the concept, this chapter shows how promotion extends from advertising in the music industry (Klein, 2009; Meier, 2017) into grassroots musicians' efforts to circulate music online. In doing so, the chapter aims to contribute to the body of research critically assessing the beneficial aspects of digital technologies and the effects of promotional cultures.[75] Thus, the debates about promotional cultures provide the background to the main arguments in this chapter, that is: 1) in an environment of abundance of recorded music, serious and aspiring professional musicians' efforts to circulate music through SoundCloud follow the broader logic of promotionalism; and 2) for musicians with professional aspirations, it is fundamental to understand both the logic of promotion, as well as the affordances of online platforms such as SoundCloud, to make the best of the available opportunities while minimising potential problems.

The chapter is organised as follows. Section 6.2 explains how SoundCloud works, and shows that the circulation of music online is a fundamental component of the political economy of the platform. Circulating music online is also a major incentive for users, but they are faced with an increasingly difficult situation as a conflict of interest unfolds between themselves, the platforms, and rights holders. The distinction

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[75] See Aronczyk and Powers (2010) for a good critical review of the concept as well as its widespread ramifications and implications in various sectors of contemporary western societies. Klein et al. (2016) examines the problems of musicians "selling out" in contemporary advertising-based business models, and Meier (2017) discusses the shift towards promotion by the music industry at large.

between different actors and their interests is increasingly important because, in Sterne's (2014) words, "there is no 'music industry.' There are many industries with many relationships to music" (p.53). Section 6.3 builds on the idea of online promotion and examines the strategies grassroots EDM musicians have adopted to build online presence and galvanise audiences' attention. In section 6.4 I analyse how the affordances of UGC platforms affect grassroots musicians' practices and experiences of circulating music online. These changes include an increased sense of importance of music as a form of promotion (and the added work that accompanies it), tensions in representations of artistic identity online, and a rebalance of autonomy and agency (such as the lack of control of musical content).

Before we move the discussion to how musicians use SoundCloud and how the affordances of the platform affect the content musicians share, it is important to understand what SoundCloud is, how it works, and the benefits and challenges it creates for musicians who use it to circulate music online.

6.2 SoundCloud: 'Hear the World's Sounds'[76]

SoundCloud is the leading online platform used by grassroots EDM musicians to upload, share, and circulate music across the internet (Giannetti, 2014; Allington et al., 2015). The popularity and prestige of the platform among EDM musicians has contributed to SoundCloud's reputation as the 'go-to' platform for grassroots EDM musicians, particularly for new music by up-and-coming under-the-radar musicians. Because of its popularity among EDM musicians, SoundCloud has also attracted the attention of EDM fans, music industry insiders (such as A&R agents looking for new talent), and well-established artists. As a result, SoundCloud offers grassroots EDM musicians a well-placed platform to reach out to broader audiences made up of peers, experienced musicians, EDM fans and music business insiders. This combination of

[76] SoundClouds' slogan (SoundCloud, 2017a).

prestige among musicians with the potential to reach audiences contributes to SoundCloud's appeal as a platform for circulation and promotion.

SoundCloud has precedents and precursors, and it built on early experiences from social network sites (SNS). boyd and Ellison (2007) define these sites as:

> web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system (p.211).

boyd and Ellison's definition is broad because the sites "vary greatly in their features and user-base" (p.214), including SNSs designed to cater to "specific ethnic, religious, sexual orientation, political, or other identity-driven categories in mind" (boyd and Ellison, 2007, p.214). UGC platforms are a form of SNS, and in this chapter I refer to SoundCloud as a UGC platform (and not a social media platform) for two main reasons: first, the legal framework SoundCloud uses to operate (explained later in this section); and second, because SoundCloud's distinct feature is its focus on musical content, and users' artistic identities play a larger role (and are frequently separated from users' personal identities, an issue explored in section 6.3).

The use of music as a core feature in SNS dates back at least to the early 2000s. Founded in 2003, Myspace was developed as a social network and music played a key role as a social aggregator, making it very popular among grassroots musicians. In *Music, Social Media and Global Mobility*, Ole Mjos (2013) describes why EDM musicians adopted SNS (like Myspace and SoundCloud), and argues these platforms – the term most commonly used for SNSs currently – play a strategic roles for EDM musicians. On Myspace, musicians created profiles "to promote and access music and information, to get to know other musicians, to connect with music scenes, to distribute concert flyers and videos, and to communicate with fans and fellow practitioners – both in the local community and across the world" (Mjos, 2013, xi). While Myspace was "the first globally expanding *social* medium to receive wide attention particularly for its connection with music" (Mjos, 2013, p.58, emphasis added), on SoundCloud *musical content* and *artistic identity* are arguably more prominent than personal sociability, and, as we will see in sections 6.3 and 6.4, the

spotlight on content has had important repercussions for musicians and their efforts to circulate and promote music online.

SoundCloud works in the following way. The platform has adopted the ‘freemium’ subscription model. Users can sign up for a free profile or pay for an account with added features (including extra storage and detailed data analytics). With free accounts, musicians are able to upload and share up to two hours’ worth of audio. To create an account, users are asked to provide three types of information: images, text, and audio content. Images are used to identify the user (as an avatar) at the top left corner of their profile page, and a second image placed underneath as a top banner. Users are also able to attach one image per audio track uploaded. Figure 5 features a screenshot of the author’s profile page, and uploaded tracks.

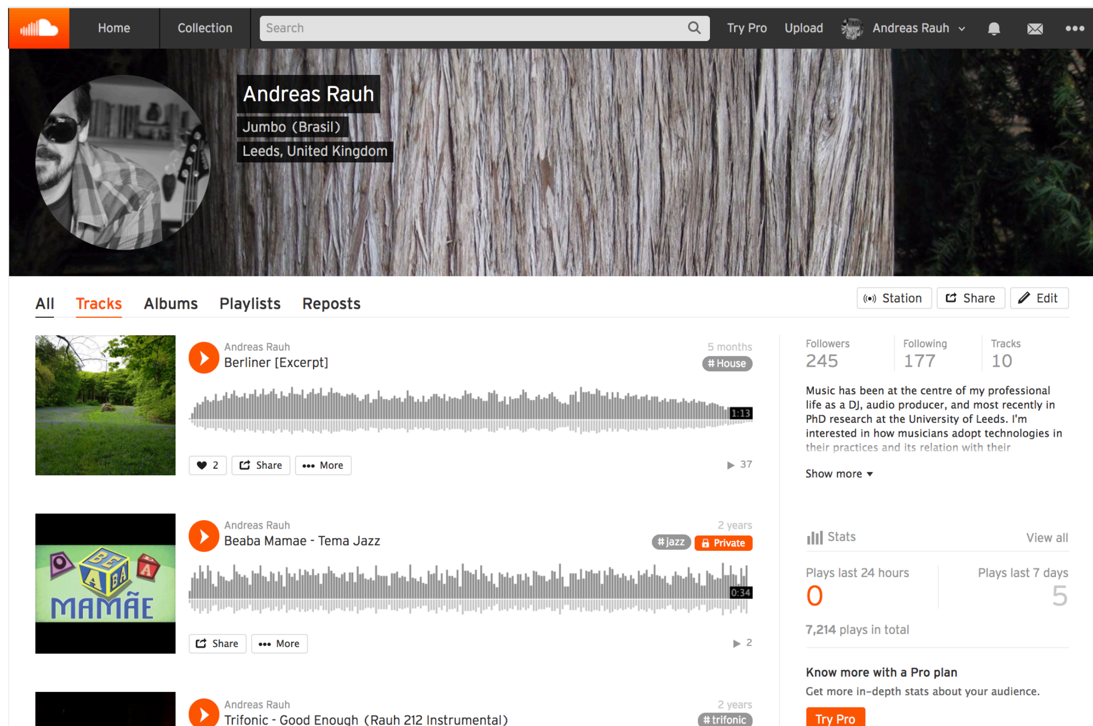

Figure 5. Profile on SoundCloud (Source: screenshot by author)

Textual content on the profile provides demographic information, as well as personal and artistic details – username, geographic location, biographic details, and links to other relevant websites (affiliated record labels and musical groups, artist webpage, links to online stores). The third type of information is audio content, which can be uploaded as previously recorded audio files or recorded via a web-based live update feature. When uploading audio content, SoundCloud asks users to provide extra

information about the recording, which the platform divides into three categories: *basic information* about the content being uploaded (cover image, title, genre, tags, description, and choice between private or public access) (Figure 6); *metadata* (credits of performers and composers, publisher, International Standard Recording Code, buy-link, album title, record label, release date, and rights holders) (Figure 7); and *permissions* (whether creators allow other users to download the audio, listen to it while offline, and playback music via the SoundCloud mobile app) (Figure 8).

Figure 6. Audio content upload step 1 (Source: screenshot by author)

Figure 7. Audio content upload step 2 (Source: screenshot by author)

Figure 8. Audio content upload step 3 (Source: screenshot by author)

Once audio content is uploaded it can be shared and circulated across the internet. Content can be shared internally in SoundCloud via the re-post function: clicking on the re-post icon adds content from other users to the re-poster's shared music section. Sharing content within SoundCloud allows music to be circulated to others on the platform, but it is possible to share music to third party platforms and apps (the re-post function is limited to SoundCloud). Sharing content across major platforms (like Facebook and Twitter) has been facilitated by SoundCloud's cross-platform integration. However, cross-posting with web-pages (such as music blogs, news media platforms) often requires knowledge of web-based programming, the use of web plugins, and Application Programming Interface (API) (routines, protocols and tools designed to facilitate software communication across web platforms and mobile apps). API integration requires basic-to- intermediate-level knowledge about web programming, rendering it less user-friendly than sharing within SoundCloud and integrated platforms (like Facebook and Twitter). Cross-platform posting allows music uploaded to SoundCloud to be accessed directly through smartphone apps, websites (music blogs, news media platforms), and social media platforms (Twitter, Facebook), thus allowing musicians to circulate music to broader audiences.

SoundCloud users can also exchange messages within the platform using internal communication features. The platform offers a private messaging system, which, as will be discussed in section 6.3, can be used for intra-platform promotion, as evidenced by unsolicited messages (akin to spam in e-mail). SoundCloud also offers a *comments* function, allowing users to comment on specific sections of tracks. It is a popular feature among beginners searching for constructive feedback. In the words of young producer Otis Farnhill (late teens), reading comments left by other users on his tracks is a good way to:

> either hear good feedback from them, or obviously more importantly an offer to release a track. Of course it's also a good way to build a fan base as well, and if a producer likes what you're doing then they might also want to share that.

Farnhill's observations about comments, feedback, and re-posts are evidence of its importance to drive attention. Moreover, by commenting on and/or re-posting tracks

from others, popular users can help to galvanise attention from other users, in a snowball-like effect.

The underlying promotional drive in SoundCloud is most evident in the features offered to paid subscribers. Users registered with the "pro" and "pro unlimited" accounts (SoundCloud, 2017b) receive extra upload time, in-depth data analytics about how and where their music is being heard (geolocated information about listeners), and a "pin track" feature, designed to highlight one track by always showing it on the top of their profiles – an area attracting more attention from visitors. "Pro unlimited" subscribers receive even more in-depth information about which webpages and apps are being used to access their music. This kind of information provides significant advantages to users to inform promotional campaigns, marketing strategies, and tour plans. Being aware of these benefits, SoundCloud monetises from the sale of in-depth data analytics to users.

Paid subscriptions are part of SoundCloud's larger multifaceted revenue stream, which is ultimately driven by content uploaded by users. As well as paid subscriptions, SoundCloud's main revenue sources include: advertising in selected countries (in the US from 2014 onwards, Germany two years later) (Dredge, 2014; SoundCloud, 2016); business-to-business deals and partnerships with brands (Weverbergh, 2013); and, more significantly, capital raised through investment rounds – in 2016 SoundCloud raised a further US$ 70 million from Twitter (Sisario, 2016). Nevertheless, in spite of its commercial efforts SoundCloud operates at a loss and faces a financial dilemma: in the words of business analyst Kafka (2017), to stay afloat the platform "needs more money, or it needs a buyer" (n.p.). In August 2017 SoundCloud's co-founder Alex Ljung announced he was stepping down from his role as chief execute officer of the company after signing a deal with a conglomerate of private investment funds who have taken over the management of the platform (Ljung, 2017). Independently of SoundCloud's latest financial and commercial decisions, the future of the company relies heavily on content uploaded by its users, and this reliance places SoundCloud in a delicate situation because the kind of musical content that can or cannot be shared is under dispute by musicians and rights holders.

Disputes about content uploaded to SoundCloud are the result of an underlying conflict of interest characteristic of UGC platforms, and have serious potentially

negative consequences for grassroots EDM musicians. The focus of these disputes are conflicts about use of intellectual property, and more specifically what constitutes fair use of third party content. Disputes about fair use of intellectual property are fundamental to EDM musicians because their creative practices rely heavily on sampling (particularly to create remixes, edits, re-edits, and mashups) and the use of third party audio content to create DJ sets and mixes. Getting permission to use music from third parties is complicated for grassroots musicians, because they often: have little knowledge about and the skills to deal with the required legal procedures (which often requires navigation through a maze of legal agreements made by a number of companies on national and international levels); lack financial resources; and are faced with an industry with a history of aggressive defence of its property rights (on-going anti-piracy campaigns). Furthermore, asking for permission from rights holders is an uncommon practice, and, by most accounts, unworkable for grassroots musicians.

Rights holders are legally entitled to defend their property from unauthorised use, but many participants contest major record labels and rights owners' views about the interpretation of misuse or abuse of property. Many participants argued that their activities do not harm rights holders' revenue, and that in fact they contribute to promote artists signed with record labels. Furthermore, as McLeod and Dicola (2011) strongly argue, sampling and remixing are deeply embedded cultural practices, and they shape the production of EDM. Explaining the legal conundrum of sampling, they explain that in copyright law fair use includes "criticism, comment, news reporting, teaching, scholarship, or research", and make the case that "transformative uses" (p.3) could be interpreted as fair use, which might encompass remixing. The problem with relying on the legal framework of copyright for sampling is that:

> courts consider four factors, including whether the use is commercial, whether creative rather than factual elements of the existing work was used, how much of the existing work was used, and whether the market for that work has been harmed. Courts evaluate fair use on a case-by-case basis, thereby making the doctrine sensitive to context, but also unpredictable to the extent that corporations hesitate to rely on it as a defense to copyright infringement (McLeod and Dicola, 2011, p.3).

The combination of elements shows the complexity of the debate, the underlying forces struggling for control, and grassroots musicians' weak position at the negotiation table. As a result, content made with unauthorised samples and uploaded by grassroots musicians to online platforms is liable to take down notices, and the aggressiveness shown by major record label lawsuits against file-sharers in the early 2000s raises serious concerns for aspiring professional musicians as their ability to share and circulate content online is at risk. As one participant explained:

> you also have so many different lawful acts that you really get scared of: what would happen if I won't be able to prove that I haven't copied this music? Then they can sue me directly. So it's kinda of… They put a lot of pressure I think, and sometimes I'd rather just remove the track and share it somewhere else through a different source.

The conflicts between musicians and rights holders over the use of intellectual property affect SoundCloud directly because the platform has to balance its need for UGC with the rights of copyright holders. SoundCloud has managed the dilemma by placing itself firmly as a UGC platform regulated under to the Digital Millennium Copyright Act legislation (DMCA, 1998), specifically the "safe harbour" provision. Safe harbour provision was designed to address the interests of the public as well as those of rights holders, and when operating according to the parameters of safe harbour UGC platforms are protected from prosecution for violation of intellectual property. Safe harbour can be invoked by online platforms if: 1) they offer an open service to the public, which exempts it from monitoring uploaded content (thus SoundCloud is not required to screen content for copyright infringement before it is made available publicly); 2) platforms offer simple tools for rights holders to report suspected copyright infringement; and 3) once notified by holders, platforms must take action to remove the suspected content, usually issuing a takedown notification to the suspected infringer (see Appendix 4 for an example of a takedown letter issued by SoundCloud). To cope with the volume of infringement notices issued largely by corporate rights holders (major record labels), SoundCloud has implemented a "three-strikes-out" policy: after the third notice is issued the profiles of recurring offenders are deleted.

SoundCloud's takedown policy is potentially very damaging to grassroots EDM musicians. As shown previously, sampling and DJ sets often use third party content, and having one's profile deleted from SoundCloud not only destroys their profile on the platform, but also undermines all efforts spent on circulating and promoting music, thus compromising musicians' online presence in the platform. Free-culture advocate Cory Doctorow (2008) argues that takedown notices are a form of censorship, and "DMCA takedown notices have fast become the favorite weapon in the cowardly bully's arsenal" (p.55). Moreover, writing for Billboard, Flanagan (2015) also argues that SoundCloud's use of takedown notices is controversial, and if "content is pulled down in error, an uploader's only recourse is to dispute the takedown through SoundCloud, which would then be required to check with the party that first removed the content" (n.p.). Even when musicians do not rely on samples, their work can be misidentified as infringing copyright. Slovenian producer Vid Vai (mid-20s) noted the problems he experienced with takedown notices and explained that:

> it was my own production! My own tracks! I think that happened like two or three times with my tracks. I made some kind of, let's say, deep house track, and it was associated with some kind of American EDM which had absolutely nothing to do with. I mean, even if I *wanted* to sample it I wouldn't. I was really trying to find, within those tracks that I was supposed to violate, what kind of elements was I supposed to repeat, and I honestly did not find anything, and even the harmonies were different, so… It was really strange.

Thinking about the consequences for DJs, he pondered:

> I think it's an even bigger problem for DJs because they play the tracks from different people, so when they have this, I think it's called a three-strikes policy now, that they just shut down your profile after you violate if three times. So, you build a base, you've been paying for the platform for several years, you have I don't know how many thousand followers, and all of a sudden your account does not exist anymore. Because you somehow violated the rights? I think that's a very bad thing.

As Vid Vai mentioned, DJs are particularly vulnerable to takedown notices as they use full tracks in their mixes, and a number of participants have moved their DJ sets

from SoundCloud to other platforms such as Mixcloud, whose policies and business models are built around supporting DJ sets.[77]

In discussing how SoundCloud works I have highlighted the conflicts of interest underlying the platform, the promotional appeal the platform offers for musicians, and shown that UGC uploaded to the platforms plays a fundamental role in the political economy of SoundCloud. The section closed with a discussion about the conflict of interest between platforms, its users and rights holders, and suggested that EDM musicians are in a particularly vulnerable situation, with potentially negative consequences to their online identities and presence, as well as their efforts to circulate and promote music. We now turn our attention to musicians' strategies using SoundCloud and analyse how they utilise the platform to build online presence and promotional strategies.

6.3 Circulating and Promoting Music in SoundCloud

Setting up a profile in SoundCloud is unchallenging, but galvanising attention from content uploaded requires on-going engagement with audiences, an understanding of promotional strategies, and adapting these according to one's objectives. The combination of ease of access and the potential to reach audiences makes SoundCloud very appealing for EDM musicians. However, while casual musicians are largely unaffected by their mistakes in SoundCloud, aspiring professionals are less so, and they face a distinctly more complex set of challenges than their casual counterparts when using the platform. These challenges include how to build their *online presence* consistently with other online identities and musical aspirations, their audiences' expectations, and the platforms' affordances. Once the hurdle of establishing an online presence is overcome, grassroots musicians must maximise reach to desired

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[77] Mixcloud does not provide an integrated download function or direct sales to its users. The platform operates akin to online radio stations, and collects and distributes royalties to rights holders accordingly. Co-founder Nikhil Shah argues that its business model mirrors those of Spotify, and they both compete with illegal downloading, "by offering a streaming-only and superior alternative" (MusicWeek, 2011).

audiences, and counter any potentially negative consequence of using SoundCloud to do so. In this section I show how aspiring professional musicians skilfully use SoundCloud to develop online presence, but also how (self) promotion provides challenges, dilemmas, and pressures for aspiring professional musicians. We begin with an analysis of musicians' efforts to establish online presence.

6.3.1 Online Presence: Identity and Content Management

Looming across the spectrum of casual-professional musicians is the notion that, in order to be successful, musicians must have strong *online presence*. In the world of grassroots EDM, this notion reverberates with celebratory discourses about the potential of technology, namely networked computers as a one-stop solution for the creation, circulation, and promotion of music. Such discourses normalise circulation of music online and encourage its adoption by grassroots EDM musicians. In the words of a major label A&R scout presenting at the 2016 UnConference: "the road to success is paved with social media". Comparing the rise of social media platforms to developments in home studio technology in the 1990s, Morris (2013) argues that:

> the tools for sharing music and connecting with fans are by no means compulsory, but because anyone *can* have a Bandcamp page or Twitter account, many artists in popular music genres almost *need* to have one by necessity. Just as the availability of low-cost, easy-to-use home studio hardware and software in the late 1990s put higher expectations on artists to have high-quality demo CDs ready before approaching record labels (Théberge, 1997), artists today face similar pressure to prove an extensive online presence with a valuable market of followers in order to convince labels or other financers to sign them up or keep promoting their work (Morris, 2013, p.276, original emphasis).

Morris's argument is illustrated in Figure 9, showing a street performer in Leeds city centre. Figure 10 is a close-up highlighting links to social media (Instagram, Facebook, and SoundCloud) and money donations (see discussion about currencies in the world of grassroots musicians in section 4.3.1).

Figure 9. Street performer and musician in Leeds city centre (Source: author)

Figure 10. Currencies in the world of grassroots musicians (Source: author)

The combination of the incentives available through online presence alongside the ethos of cultural entrepreneurship is often conflated with notions of self-promotion as a strategy for artistic and commercial success. Nevertheless, participants demonstrated ambivalent views about self-promotion, therefore while some have integrated the extrinsic promotional drives into their online presence (akin to the integration of extrinsic motivations as discussed in section 4.2.2), others are critical about the problems of conflating private and public identities in their promotional strategies. To understand that, we need to analyse the incentives provided by a strong online presence.

Online presence, or “online impression management” (Baym, 2012, p.288), is achieved through the creation of an online identity (through profiles on UGC and social media platforms), and, more importantly, through on-going management of content and interaction with others. In ‘Fans or Friends?: seeing social media like musicians do’, Baym (2012) offers an excellent analysis of the dilemmas musicians face when using social media to manage online presence while interacting with audiences, including the dilemmas of managing personal and artistic identities online:

> perhaps more than most, musicians, whose songs are so easily shared online and whose livelihoods are so clearly at stake, are caught in the fray of these disrupted expectations. Musicians now find themselves in a career where continuous online impression management and relationship building seem to be requirements (Baym, 2012, p.288).

Baym’s analysis is consistent with Marwick and boyd’s (2011) conceptualisation of the online mediated public figure as micro-celebrity, but Baym suggests that the challenges for musicians are greater because when online:

> they must manage tensions between [micro-celebrity] and performing something more like ‘friend’ as they strive to balance new expectations of socially-mediated intimacy with the needs to protect themselves, their loved ones, their fans, and their music (Baym, 2012, p.312).

The stakes for casual musicians are lower than those facing the professional musicians Baym investigated, yet the situation she examines is closely reflected in the realities of grassroots musicians on the professional side of the spectrum. They too must balance a complex set of needs.

When analysing the world of grassroots EDM musicians, the concept of online presence used here is intentionally broad. Being present online requires musicians to, among other activities, update and manage online profiles regularly, monitor incoming and outgoing messages, curate shared content, and adapt their activities according to each platform and the promotional strategies adopted. Furthermore, they frequently juggle personal and artistic profiles, with varying degrees of overlap between them. Having a strong online presence allows EDM musicians to maximise the circulation of music across the internet, establish and maintain contacts with

audiences and peers, and, in the case of aspiring professionals, the opportunity to cultivate online presence into career benefits. In the words of the Kingston-Upon-Hull EDM veteran Steve Cobby:

> with the added help of the internet and the capability to form a relationship direct with customers effortlessly, [musicians can] avoid the pitfalls of the old business model and glean better profits by avoiding the traditional route to market via record label, distributor and shops (interviewed in Baines, 2017).

Nonetheless, online presence does not guarantee success – it demands commitment, knowledge of promotional strategies, the affordances of platforms, and regular management of content online.

Finding a balance between personal and artistic identities while managing online presence is a major challenge for grassroots EDM musicians. For example, even musicians who opt for a more personal relationship with fans must carefully consider which aspects of their lives they desire to be kept private. Analysing people's interaction in online platforms, boyd (2011) uses the concept of *networked publics*, defined as:

> publics that are restructured by networked technologies. As such, they are simultaneously (1) the space constructed through net- worked technologies and (2) the imagined collective that emerges as a result of the intersection of people, technology, and practice (p.39).

Within these networked publics, users develop what Papacharissi (2010) calls a *networked self*. Participants' choice of platforms also follows a very delicate balance between their online identities (private and public) and promotional strategies. The balance between identities and strategies is necessary because the affordances of each platform favour specific kinds of content and forms of interaction. A young aspiring professional DJ and producer in his late 20s explained how he primarily uses two platforms to build his online presence – the instant messaging application WhatsApp, and his SoundCloud account – according to the characteristics of each. Through the instant messaging app, he circulates information about mundane musical activities. In his words WhatsApp is:

> like a direct channel I have with fans you know? I post stuff that they might be interested, but not something I would put on my SoundCloud [profile]. Like, me playing in a club, or a track I really like that I didn't know before, this sort of thing, just to let them know what I'm up to.

On the messaging platform he has adopted an informal tone, yet focused on his artistic identity. He uses it to circulate selfies taken with famous and well-known musicians, fliers and posters of events he is either directly involved with or is helping to promote, links to recorded DJ mixes, EDM-themed memes, insider jokes about EDM culture, and snippets of live performances and studio work. In contrast, his SoundCloud profile adopts a formal, almost institutional tone. It features a short artist biography, information about previous and upcoming releases, dates for future live performances, contact information (such as the label he is signed to and his booking agency), professional-grade photo-shoot images (used for his avatar), and the top banner in his profile has his DJ name stylised as a brand logo. His online presence is built from the sum of his activities on both platforms (including his profiles and the content circulated through them) and his choice of tone and content is tailored for different audiences.

SoundCloud plays a central role in EDM musicians' online presence because it is widely used and provides a sense of prestige and trust, which (still) sets the platform apart from others.[78] Trust is an important feature of music-centred SNS and UGC platforms according to Mjos (2013, p.90), and he suggests that "despite the ability to connect virtually and create an appealing Myspace profile, a club or music venue must be 'trustworthy and solid'" (p.90). Unlike the emphasis on sociality on Myspace, aspiring professional musicians on SoundCloud tend to shape their artistic profiles to emphasise their artistic identities with an entrepreneurial, almost institutional image of their artistic personas – an aspect identified by Reitsamer (2011) with regards to EDM musicians' entrepreneurial behaviour in real life. Thus, aspiring professional

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[78] Given the current changes SoundCloud is going through in its management and business model the question about its future prestige among users remains open.

musicians project their idealised image as individual cultural entrepreneurs on SoundCloud because, as Mjos (2013) explains, "the physical real world needs to correspond with the online world" (p.90) to reinforce trustworthiness.

In SoundCloud the profiles of participants on the professional side of the spectrum are largely an online (re)presentation of their portfolio, with minimal personal information displayed. The case of Gabrielle Cooke illustrates this point. In her early 20s, Cooke is a Leeds-based aspiring professional DJ, with a SoundCloud "Pro account". Her profile downplays personal references and favours a formal image: her DJ moniker 'Cocoa Creole' is more prominent than her given name, her biography section has no personal information, and there are no links to other social media profiles containing intimate and/or private information about her identity. Most of her DJ mixes are named after foods and dishes, "Late Night Cocoa Pops", "Cocoa Chocolate Mint Fest Mix", "Pineapple Dance Vol 1", and "Cocoa's Carnival Passion Cake", which she explained is a branding strategy designed to mark her artistic identity and stand out from the crowd of "bland DJ set names". When asked how her use of SoundCloud compares to other social media, she explained that the choice of platform (alongside the content and information shared on it) follows complex considerations about the content and the platform because she is very careful not to mix information about her personal, artistic, and working life identities in the same profile:

> I have [a] Facebook [account] and to be honest I do pretty much just accept most people that friend request me because… well, I look to see who the mutual friends are and if they are other DJs or entertainment industry people – even if I don't know them – I just accept it because I just think of it as promotion. I wouldn't really put anything on Facebook that I didn't want people to see. For example, I've just been to a job interview, just for some extra bar work, and they straight away asked me what my name was on Facebook to go on and check the people. You need to be careful what you put out there. I don't have Twitter but I'm conscious that I need to get one because people keep asking me if I have Twitter, I just don't really understand it [laughs]. But it's another good way of promoting yourself, isn't? I have Instagram as well and I find that very useful.

Spread across several platforms Cooke's online presence reveals a considerable level of social media literacy, to the point of recognising the potential of Twitter but refraining from using it for lack of knowledge, therefore avoiding public embarrassment. Being aware of the characteristics of each platform, and, more importantly, adapting her online presence and identity to each one plays well to her advantage. However, her concern about what she posts on her profile on Facebook shows the challenge of managing online identities throughout various platforms – and her comment about the job interview and her Facebook profile illustrates how posting content deemed inappropriate can jeopardise opportunities for day jobs, as well as her aspirations as a professional musician. As a result, Cooke feels compelled to balance her personal and artistic online presence on the various platforms she uses, to fit with expectations of different audiences (including fans and employers).

The challenges musicians face in establishing online presence are not limited to career aspirations. In Cooke's case it also includes her struggles within the male-dominated world of EDM. Her use of Instagram is tailored to provide her with a safe space to express her gendered artistic identity, and to create a network with other female musicians. In her words, Instagram is:

> good because you can hashtag #dj, #girldj, all that, and then other people have searched and then find you. I've come across a lot of other girl DJs from doing that. So we started following each other and stuff. I like the idea that there is a lot more girl DJs coming out now, cause there's no reason why it should a male-dominated industry. I don't know why it is up to this point, really, but it's good that girls are starting to think about it more.

She highlights the potential for solidarity and community-building on Instagram – something she does not experience on SoundCloud. Through Instagram (particularly its tagging function) Cooke cultivates a female-oriented network of peers, who support each other and allow greater freedom to explore gender-based aspects of her online presence that could attract unwanted attention, and potentially abuse. By fragmenting different aspects of her online identity on various platforms, Cooke's practices reflect Papacharissi's previously mentioned concept of the fragmented *networked self* (2010), and in doing so, she seeks protection from negative comments

that frequently afflict female musicians in the EDM world (see the discussion about Nina Kraviz in sections 4.3.3 and 5.2.1).

In general, participants declared that they feel compelled to use SoundCloud for music circulation and promotion, and forging an online identity can be challenging for those who, for various reasons, are wary of self-promotion. The problem is common among grassroots EDM musicians invested in subgenres where self-promotion is frowned upon (like the 'underground' EDM world) as well as for those who subscribe to an anti-promotional ethos. Furthermore, the problems associated with promotion (specifically self-promotion) are particularly acute for introspective musicians. When asked why he uses SoundCloud, Slovenian producer Matej 'Kleemar' Končan (mid-30s) replied:

> Končan: I have a SoundCloud [profile] but I'm really shy about it you know? I don't like to, ahm… as I make a new track I'm not really like, this kind of person who shares it with everyone.
>
> Interviewer: So what do you use SoundCloud for?
>
> Končan: Just to have something, you know? So that I *exist* you know? Because all my friends are telling me I have to have SoundCloud or something.

Končan's comments highlight dilemmas associated with the ubiquity of online platforms in the world of grassroots EDM, as well as over-promotion. His case is interesting because he is a seasoned musician with a background in a synth-pop band, and yet he shuns self-promotion online. His interest in electronic music began at the end of the 1990s, and from 2008 to 2013 he was a full-time member of the Croatian synth-pop band Lollobrigida: "I was always playing keyboards, and programming stuff and pushing the buttons", he explained. As the most experienced band member in audio and recording engineering (a legacy from his EDM production), he was actively engaged in recording and producing the album *Pillula*, and later toured Eastern Europe and Scandinavia playing synthesizer with the group. Since quitting the band in 2013, Matej has released electronic music through small independent labels, and by himself via online platforms (SoundCloud and Bandcamp). In both platforms, he exclusively uses the moniker Kleemar and makes no reference to his

given name, thus dissociating personal from artistic activities. Furthermore, he stressed that the use of his artistic moniker is particularly useful to maintain his personal identity private online "because I don't post pictures of myself anyway". While his background with Lollobrigida suggest he is reasonably comfortable being and performing in public, his aversion to promotion stems from not knowing, in his words, "what being on SoundCloud *actually* means". His view reflects other participants' critiques of (self) promotion via UGC platforms, and its most outspoken critics refrain from using online platforms altogether because it is seen as "shameless self-promotion": "it's about me-me-me, not the music", and "like ego-feeding". Kleemar is uninterested in using SoundCloud to forge an online identity, manage content, or to strengthen his social networks, so much so that one of his online profiles is managed by the record label that released one of his EPs.

For musicians like Kleemar, the opportunity to *exist* in the digital environment is a great benefit of having a profile on SoundCloud with their music available, but *being online* comes at a cost. Not only is it a burden for musicians uncomfortable with the idea of promotion, but the conflation of being online with *self*-promotion also intensifies dilemmas about the balance between promotion and artistic *authenticity*. When asked about his promotional strategy for releasing music online, Alan Roposa (mid-30s) illustrated his case with the mistakes he committed with his first releases in his early days using SNS (mid-to-late 2000s):

> at that point it started to shift this focus from music to more like imaging, branding, you know networking… The digital revolution came in, and suddenly it was not like, "ok we have a good track, it will be found out, maybe you will put it out", no. It was like suddenly to release a track you didn't need thousands of pounds, you need 50 euros for mastering and, not even that, somebody just put in a [VST] plug-in and you know, release it as MP3. And suddenly there was a whole bunch of fish in the water you know? And I think we didn't anticipate that enough carefully, so we just put a release out and did our guerrilla-style marketing, but of course it was basically dead as it came out, it was lost in the jungle of the releases.

Even though at the time Roposa was already aware of the importance of promoting his music through SNSs, he underestimated the need for a planned promotional strategy to maximise reach and push his music to audiences, and as a result it was lost

in the cacophony of releases by EDM producers. The number of other releases and the need to have a planned promotional strategy, Roposa suggested, undermined the success of the record and his "guerrilla-style marketing" which was part of 'maverick independent producer' ideal.

In sharp contrast to the dilemmas aspiring professionals face, casual EDM musicians deal with far less complicated problems to establish online identities in SoundCloud. Take the case of Leeds-born casual DJ Pete Johnston (early-30s). At the time of interview, Johnston was living in Barcelona and busy running his catering business. He described himself as an enthusiast of EDM who began DJing and promoting a techno and house night during his years in college in the early 2000s. His SoundCloud profile is markedly light-hearted, and he builds it with a peculiarly dark sense of humour. He described his use of SoundCloud as:

> always something that just makes me laugh, I don't take it that seriously [laughs]. It's like a stupid little page. Like, when I left Australia. I always name the mixes after something that has happened that is funny and then put a picture that relates to that. So I have one that is a kangaroo that had been exploded by a truck and [the mix] was called like, "Goodbye Australia". That type of thing. I think you have to have fun with it, make people laugh and not take it too seriously. Unless it's obviously pretty much like your business, because you need people to download it to make money or whatever, but for bedroom DJs it's just fun. It should be really about fun I think. It's mainly friends and family [who] will listen to it and give me a little bit of feedback or ask what specific tune it was and things like that. Or say, "can you take that picture down? It's disgusting" [laughs].

His 'stupid little page' comment contrasts sharply with the seriousness with which aspiring professionals treat theirs. Moreover, the promotional force of SoundCloud is not lost on Johnston, and his lack of professional ambition is liberating, as illustrated by his use of the image of the dead kangaroo. In fact, by courting controversy he builds a dark-humoured, tongue-in-cheek identity aligned with his casual ambitions, and instigates attention from his modest audience. This is not to say that Johnston has a carefully planned promotional strategy based on controversy, but rather that his position as a casual musician places fewer expectations and restrictions to self-expression on SoundCloud when compared to participants with professional

aspirations. Another participant, also on the casual side of the spectrum, uses the same image throughout his profile – as avatar and as track covers – and said he just does not bother to change it because, "my profile is just to have my music available if anyone want to listen to". In this sense, even though on SoundCloud there are clear variations in participants' online identities and content, promotional cultures exert a standardising force which can be seen in aspiring professional musicians' formal approach.

Aspiring professionals' profiles on SoundCloud operate as 'official' online showcases, and the challenges of establishing online artistic identities are also complicated by tensions between notions of artistic authenticity, (over)commercialism, and the difficulty of capitalising on the circulation of music online. These tensions arise in musicians' views about the difficulty of maintaining authenticity while selling music and avoiding being labelled "sell-outs". In his mid-20s, EDM producer Vid Vai has already released a string of EPs via independent labels, and he is reluctant to use SoundCloud to promote his music and himself; in part because of his negative experiences when his music was downloaded without permission from his profile (an issue examined later in section 6.4), but also because he is critical of self-promotion. He explained that:

> if you have money and the capital then you can sell everything and usually that's the case because then there's a lot of things that are not necessarily good but they just stand out […] I think the more artistically oriented people, in general, they don't care much about promotion and investing money in this stuff. Just making amazing things and let's see what's going to happen.

The long history of commercial flops in the music business counters Vai's suggestion that given enough money anything can be sold, but his statement reiterates the romantic myth of the artist within the 'art vs. commerce' debate (discussed in section 2.2), based on notions of meritocracy. For him, the problem with self-promotion is its potential to undermine merit and talent, and when asked why he thought this was a problem he replied,

> it pisses me off, I guess that people are listening with their eyes [laughs]. That's my problem. I'm trying to be very… I'm kind of critical when it comes to listening to music and I think that… With the times in which we

> are, in the scene, it's usually people who are more friendly and have more connections are more successful than the talented ones – [the latter] don't get many connections. I mean, it's very very… it's not necessarily true, but I see it in some cases like this. Yeah, people should be more critical I think.

Vai was referring to online self-promotion among musicians in general (including famous musicians and local peers), as well as audiences who overemphasise popularity and promotion over musical skills and artistic merit. As a talented young musician struggling for attention, Vai's critique is biased, and while he may have a valid point in criticising what he sees as the downplaying of talent over social networking and promotion in grassroots EDM, he is wrong to disregard the importance of promotional skills in building a successful career. In fact, regardless of professional aspirations, some of the most successful participants balance high-level musical skills with a keen notion of promotional strategies and ways to employ them according to their objectives. A participant who is also a fan of hip-hop paraphrased the lyrics of Ice-T's song "Don't Hate the Playa" in explaining that, while he despised "shameless self-promotion online", it was important to "hate the game, not the player".

Understanding the logic of online promotional cultures opens up pathways to avoid potential negative aspects. One of the most effective ways to counter the controversies around self-promotion was adopted by a Berlin-based DJ, who after fifteen years in the world of EDM described himself as "making a living, not a career. Yet." During a backstage conversation he explained his simple, yet effective, promotional strategy: he neither has nor directly manages any profiles on social media or UGC platforms, but relies on word-of-mouth commentary by others (fans and critics) to build his online presence, and in doing so he reaps the benefits of promotion while avoiding the pitfalls associated with over *self*-promotion. It is true that he has little control over what is circulated about him, but he justified his methods with the cliché, "there's no such thing as bad publicity", and a smirk. His strategy harnesses the power of social *not*working (refraining personally using SNSs), as he argued that promoting himself online:

> would make me look bad, like I'm desperate or something. I mean, that's the problem with social media and all this online bullshit. No one pays

> attention to the music, it's all about "*look at me, me, me, me!*" If I'm going to make it as a musician, if people are going to listen and respect me, it has to come from them, not me. You're not a DJ just because *you* think you are, it's because *other people* think you are.

Nonetheless, even though the strategy is conceptually simple, executing it is not. He is constantly encouraging fans and friends to post content *about him* on their profiles (videos of live performances, selfies, testimonials, and reviews circulated by fans via social media and other online platforms), and does his own off-the-record public relations work with EDM-specialised online media outlets. His strategy follows an anti-self-promotion ethos, and his projected blasé (some would suggest "cool") attitude with regards to online promotion is designed to add to his socio-cultural capital and artistic identity.[79]

Regardless of the adopted promotional strategy, having a strong online presence is fundamental for musicians with aspirations for success within the mainstream world of EDM. Musicians' online presence, or as some would have it, *digital footprint*, is monitored by major record labels and their Artist and Repertoire (A&R) divisions. In the 2015 edition of the UnConference (the event tailored for music students and aspiring professionals to hear from, and network with, industry insiders) the head of marketing of a major record label explained what musicians should do to increase the chances of being noticed:

> if you want your band to be on the radio you *have to have* YouTube views, Shazaam, the Hype Machine, Twitter, Facebook, Instagram, SnapChat, SoundCloud, you name it. You can't just have one of them, you have to have *all of them!* Because *every time* someone walks into [BBC] Radio One – every Tuesdays they have the meetings – they will sit on a room and listen

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[79] Legendary Detroit house DJ and producer Kenny Dixon (aka Moodyman) is a good example of the anti-promotional ethos in underground EDM (Resident Advisor, 2018). Legendary producer Richard D. James (Aphex Twin) also has a SoundCloud profile under the name "user18081971" used to share music with no information linking to himself or any of his multiple monikers.

> to the records. They listen to the records, then they go online and they go "how many followers have they got? What's the engagement with the fans? How many plays on YouTube? Are they on Twitter? Blah blah blah." And if it is not high they are just not interested. *Even if* that might be a hit record, so don't underestimate it.

She continued,

> digital is a really really *really* important part of what we do nowadays. Some bands do their own, some bands don't. When you got a new band one of the most important thing is to train them how do to their social [media] because obviously it can be the core of any campaign.

Encouraging aspiring professionals to have a strong online presence benefits major labels in a time of change in the recorded music industry. Data analytics from platforms such as SoundCloud, YouTube, Spotify, Shazaam, and Twitter helps A&R divisions in projecting the commercial potential of new acts without leaving the office. Conflating the idea of online presence with promotion, the message sent by the head of marketing to aspiring professionals is clear: "create a social media buzz around you and we'll notice". The challenge for aspiring professional musicians then is how to galvanise audiences and maximise exposure to create "the buzz". Thus, in order to stand out from the crowd, musicians' strategies are designed to convert their online presence into audiences' attention.

6.3.2 Attracting Attention: Strategies and Best Practices

In their efforts to be heard, grassroots EDM musicians employ a number of strategies to maximise reach to audiences and overcome the challenges of being noticed in an environment saturated with music and musicians. The most important elements in their strategy are the *quantity* of posts, *frequency* of content uploaded (including the timing and how one post relates to previous ones), and its aesthetic *qualities*. Moreover, participants experienced with online circulation and promotion have developed posting strategies that balance the requirements while minimising the downsides associated with self-promotion.

Finding the right amount and balance between quantity, frequency, and quality of posts is challenging, and takes time to master. In their drive to quickly attract attention,

musicians lacking experience with posting strategies on online platforms often get the balance wrong. Label owner Al Bradley (early-40s) explains, “in the age of things like SoundCloud and stuff, people’s temptation is to put things up as soon as they’ve made it”. The confusion is particularly acute among beginners, but even experienced musicians in their early days using SoundCloud are prone to error. Reflecting on his early posting strategy, DJ and producer Frederico Torres (early-30s) explained,

> Torres: I would post excerpts of my live performances on SoundCloud, and it was some of the worst mistakes I’ve done. You just don’t post excerpts.
>
> Interviewer: Why do you think this was a mistake?
>
> Torres: I thought it was important to show what I was doing, but it was not up to the standard I aimed for. Because you know, it was recorded live, so some stuff wasn’t equalised right, or there were improvisations that didn’t go well, and there were some things that could have been done better, but I was playing by myself and took risks. Posting it exposed me in a way that I do not want people to see.
>
> Interviewers: And what were the consequences of doing that?
>
> Torres: I believe I’ve burned some contacts, you know? I couldn’t reach some people… I couldn’t play at some people’s parties even though I had removed that stuff by then. It’s like I tell my students, “mate, listen before you post, listen again, wait a week, listen once more. If you don’t like it, don’t post it! Do not rush your work!” Because some people post one track a day on Facebook or SoundCloud. What the hell is that, you know?

His comments reveal the risks of getting the wrong balance between quantity, frequency, and quality of content uploaded, and the serious negative consequences for aspiring professionals – lost opportunities, bad reputation, and lower credibility. Kristjan Kroupa (mid-20s), a Slovenian DJ and producer makes a similar point. When asked about how he started using SoundCloud he explained that,

> at the beginning I uploaded everything on it, just because I wanted to get a little bit more recognition. But now I’m just about [uploading] once per month, once per two months. I just upload something so the people see I’m still doing music or if I’ve done something new that people didn’t even know that I’m doing that. I just put it on. At the beginning it was more about

> recognition, now it's just that you're like… [to] be on that page you know. People still see that you're still making music.

Reflecting on their early posting strategies on SoundCloud, both musicians identify (high) quantity and frequency of posts, as well as (low) quality of content as mistakes, and attribute them to their eagerness to be heard and lack of experience with what boyd (2011) calls the networked *public* aspect – SoundCloud has become more of an online portfolio for finished work. Kroupa lowered posting frequency to keep public awareness and reduce over-exposure. Kroupa is averse to overly commercial promotion, and his use of SoundCloud reveals scepticism about what he sees as SoundCloud's commercial self-promotion. Nevertheless he concedes it is important to be active on SoundCloud in order to be recognised as an active musician. His efforts to increase both the quality of content and the interval between posts reflect his growing experience and reputation online as well as within the Slovenian EDM world (mentioned in section 5.3.4). The consequences for Torres were considerably worse: because it took him some time before realising his mistakes he lost prestige among local EDM insiders, which cost him opportunities and damaged his reputation – a serious problem in the close-knit social structures of EDM musicians.

Musicians experienced with online circulation know that finding the right balance to suit their needs and audiences' expectations is difficult, and the commercial imperatives of advertising make it more so. Post too frequently and musicians run the risk of overflowing followers' profiles with content; post too little and they may be perceived as inactive, a sign of failure or poor commitment that undermines their efforts. As argued in section 6.2, UGC platforms such as SoundCloud rely on user content, and platforms benefit from content uploaded as it drives user traffic. SoundCloud's marketing campaigns often boast about the amount of music on the platform: 135 million songs in 2015 in their database (SoundCloud, 2016), and 150 million by the following year (SoundCloud, 2017b). A 2014 article published by technology-focused website TechCrunch states that SoundCloud has "more than 10 million creators", who collectively "upload 12 hours of music and audio every minute" (Butcher, 2014). SoundCloud's need for content, coupled with musicians' desire for attention, can have detrimental effects on musicians' efforts in balancing frequency and quality of shared music.

SoundCloud is not alone in its constant need for musical content, and companies whose business model is based on advertising also depend on it. Streaming platforms like Spotify also encourage musicians to upload content. Speaking at the 2016 UnConference, Spotify's 'artist ambassador' gave 'best practices' guidelines for the audience: uploading music in regular intervals increases musicians' visibility on the platform and adds consistency. While Spotify and SoundCloud's business models and politics are different (for example, the former does not operate under the Safe Harbour provision), both offer exposure opportunities for musicians. Moreover, the strategy suggested by Spotify's artist ambassador reflects the release cycle in EDM, based on singles rather than full-length albums. However, the suggested release strategy extends beyond album formats and release dates, as he argued that aspiring professionals should think about themselves as always "on cycle", providing a regular stream of music, news, blog posts, and engagement with audiences through SNSs. He reinforces the "always on" marketing culture (Vollmer and Precourt, 2008) and the behaviour of heavy social media users and content creators in UGC platforms.

As well as frequency and quality of content, EDM musicians must take into account the online behaviour of their audiences, and plan posting strategies accordingly. The objective is to find the right moment to upload (within the daily and weekly cycle) that maximises reach and minimises risk of saturating followers' content feeds. An independent record label manager explained his strategy: for months he monitored the amount of feedback received from posts on Facebook and SoundCloud, and detected reaction patterns. He explained that posts on late Friday afternoons and early Sunday evenings were particularly efficient, because:

> it's when people leave work and want to know what do to in the weekend, and when they are tired from the weekend and are just browsing through the news feed.

Moreover, in his analysis of geolocated metadata from his followers' behaviour in SoundCloud he realised that they were mostly concentrated in Europe and the US. Therefore, he increased uploads in late afternoons to account for the differences in time zones, and concentrates posts between 4 and 6pm (CET) because "it's lunch time in the US and people here are leaving work".

Musicians' timing of posts must also consider promotional strategies of third parties, particularly when releasing music via a record label. Uploading a song to SoundCloud before its official release undermines labels' marketing campaigns. Al Bradley (early-40s), the DJ and producer who also owns and manages the small independent label 3AM Recordings, explained his strategy for posting music on SoundCloud:

> with the label now, and also with remixing and things that *I* do, I don't tend to put them up until maybe a day or two before the actual release comes out, and part of the reason for that, I know from the label side of things, you get artists who maybe have done a remix for me, and obviously you have to promote it and then you have your run-in time before it comes out and so on. And you find that somebody has put their remix on their own page, like 10 weeks before the release comes out, which is fine and I understand why people do that. But it sort of defeats the objective of doing a promotional campaign, and particularly for us DJs who want to feel like we're the special ones getting these promos [chuckles]. Again it sort of defeats the idea of promotion.

Bradley's insights are informed by the combination of his experiences as both musician and manager of a small independent label. He is keenly aware of the dilemmas created by promotional strategies adopted by musicians and labels, which, as his comments show, can contradict and undermine each other as they compete for the higher visibility gained by posting unreleased music, which in the world of EDM carries higher subcultural and promotional value.

The logic of online promotional culture builds on strategies developed by the advertising and marketing industries, and it has wide implications for aspiring professional musicians. Analysing creative advertising in the late 1980s, Nixon (1997) suggests three basic driving principles: "to speak to a specific consumer segment, to reach them via the most appropriate media, and to give the advertisement a 'look' which was sympathetic to the media environment chosen" (p.205). These principles inform online promotion to a large extent, and even aspiring professionals with no formal knowledge or training in marketing strategies have incorporated them. Xavier Bonfill (late-20s) is a producer and composer currently studying music composition in HE. His extensive musical background includes a stint as a professional studio engineer and music teacher – he began his musical life playing jazz guitar, but quickly

developed a taste for electronics. When asked about how and why he chooses specific platforms to release music, he answered that,

> at the moment I have [a profile on] Bandcamp, and I have a SoundCloud as well. I used to work with a distributor for digital stores, but I realised it's worthless because you don't make any money out [of] it and you just pay. I mean, you don't pay that much but you don't get it back either, so what's the point? And it's also about your model, why should I be in iTunes store? Is it really my audience? I don't care about iTunes store, so should I be supporting that? Why should I be in iTunes? Why should I be in Amazon? I mean… If it's on Bandcamp for instance, they give quite decent share to musicians and allow us to choose the price. People can listen to the full record, which is handy as well. It allows a high definition audio, which is also something you would not get in a mainstream store. So it's just perfect I think. I think so far it's the best platform I've seen to release music on.

Bonfill is concerned about how platforms' business models and how circulating music through each of them affects artistic authenticity, identity and revenue. Financially, his views are dominated by a general sense that online distributors and retailers – including iTunes, Amazon, and SoundCloud – offer a bad commercial deal for musicians. However, Bonfill argues, Bandcamp is different: it offers greater potential financial returns, better experiences for his audience (via hi-quality full-length tracks), and the platform is not negatively associated with self-promotion or exploitation. Moreover, Bonfill's current solution to the 'art vs. commerce' dilemma in Bandcamp highlights two important aspects about music circulation online. First is the notion that the business model of each platform influences the relationship between musicians and their audiences. And second, that even though the logic of promotion permeates musicians' efforts to circulate their music and establish online identities, there is room for musicians' agency, albeit limited to the models available. Xavier's rationale for choosing Bandcamp over SoundCloud reflects his priorities and Nixon's (1997) three advertising principles: it is aimed at a specific audience (fans of independent artists), uses an appropriate media (one that emphasises 'fair-trade'), and is formatted in a desirable manner (full-length tracks in high-quality).

Efforts to attract attention to the consumption of music shared on SoundCloud are accompanied by strategies designed to foment other forms of online interaction. The

objective is to catalyse audiences' music consumption into other forms of online activity, such as feedback, comments, re-posts, shares, and likes – within SoundCloud as well as in other SNSs. Otis Farnhill (late teens) is a producer with no formal training in marketing strategies and has had tracks released by a prestigious label. In his late teens he has a knack for encouraging online activity from his friends, fans, and peers. He explained his strategy for galvanising attention from music uploaded as:

> a lot of it is *how you post* online, when you're posting your music. A lot of people I've seen they'll just put like, "check out my track", or even just leave a link to it you know, whether it's commenting on a YouTube video, on a Facebook post, on SoundCloud, or Twitter. So what I do – and I don't do this just for the sake of it to make my post look a little bit different – I always like to hear from other producers and hear what other people are doing. So, for example, I might put, "here's my remix, I'd love to hear feedback on it, I'd love to hear anyone else's [remixes] as well, drop your links bellow" or something like that. Just to engage people and to make the post seem a little less generic you know? Cause a lot of people will just post "check my track", and I see that as opposed to something that engages people. So that's kind of what I try to do with that, try to be a little bit more open, have this kind of attitude, be willing to listen to other people's music as well as my own, and to give feedback.

As a young aspiring professional musician Farnhill seems genuinely interested in feedback about his music and frequently comments on other producers' tracks on a Facebook community he manages. But more than encouraging music consumption, Farnhill is also aware that engaging with his audience helps him promote his music, boosts traffic to his profile, and increases visibility. Furthermore, feedback from peers informs his future productions and helps his informal learning practices (as argued in section 5.2.2). Otis' use of SoundCloud reinforces Wernick's (1991) arguments that promotion (a) extends "beyond the immediately commercial" (p.181), and (b) in doing so, exhibits a "compound and dynamic character of the relationship between promotion and what it promotes" (p.181). In other words, when circulating music online, grassroots EDM musicians must tread the fine line between promoting music and promoting the self. Producer Xavier Bonfill (late-20s) explained the challenge as:

> the thing that you cannot do is say “I released an album”, “I’m playing a concert”, “I’m doing this”, “I’m doing that”, blah blah blah, because then people won’t like you [chuckles]. It’s kind of weird because you’re making friends and you’re making promotion at the same time, and if you [are] too obviously making promotion people won’t like you, if you’re too much into the personal thing people will know what you’re doing, so it’s… [He takes a pause and a deep breath] Sometimes I think, ahm… pop artists, for instance. Many of the icons we have nowadays, like classic icons, what would have been if, I don’t know, David Bowie had Twitter in the ‘70s? Part of the mystery was there, that you saw this guy dressed up weird and you didn’t know what he did the rest of the time. If he puts up a photo of him [online] eating a cupcake, what does that mean? You know what I’m saying? It’s like nowadays, Beyoncé, big big stars, pop stars, like they publish everything they do, so this kind of mystery is lost.

When promoting his music on SoundCloud, Bonfill separates personal and artistic personas, because in his view, the confusion between them would damage his reputation as a musician. Bonfill’s comment about a hypothetical Bowie in Ziggy Stardust attire sharing selfies is a tongue-in-cheek comment criticising, from his perspective as an underground musician, the level of self-promotion online. One of the issues about self-promotion, in the words of Wernick, arise “when any instance of individual self-promotion spills over from the private realm to become a topic of public communication”, and “interindividual competition gives rise to yet a further form of promotional practice: the construction of celebrityhood” (Wernick, 1991, p.183).

Marketing specialists have long noticed the promotional appeal of online platforms and offer advice on how to use it, often for a price. Online marketing specialist Zaveri (2016) advises aspiring professional musicians to hire third party ‘click-farms’ to boost the numbers of followers and song plays on SoundCloud because higher numbers increase the appeal of musicians’ profiles to audiences and record labels’ A&R divisions. However, grassroots musicians must evaluate the advice given carefully, because it can have grave negative impacts. Artificially inflating followers and plays through click-farms is not only frowned upon by serious musicians and committed music fans, but is also seen as ‘poor practice’ by music industry insiders who are aware of these practices and disapprove. The consequences for those who

artificially boost numbers on social media or UGC platforms can be crucial, as illustrated by the head of marketing of a major label:

> a *digital* product manager at one of the major labels took a screen shot of an artist's YouTube channel and photoshopped the views to increase the number. Just so he can get out of being told off in a meeting at Radio One. They didn't fall for it. It's Radio One. They *will* look, and they *did* look, and that band never got played.

In this section (6.3) I discussed musicians' online identities and how they inform their online presence. It followed with an analysis of their promotional strategies when posting content on SoundCloud, and suggested that musicians use SoundCloud according to the logic of promotionalism as they employ strategies to optimise exposure to capture and build on audiences' attention. While having a strong online presence on the platform is no guarantee for success, when used appropriately SoundCloud offers significant positive benefits. We now turn our attention to how music circulation and the affordances of SoundCloud influence music made and shared by grassroots EDM musicians via the platform.

6.4 Music on SoundCloud: Control and Content

This section focuses on musical content created by grassroots EDM musicians and circulated via SoundCloud. It first examines how the affordances of the platform shapes users' activities and highlights conflicts and dilemmas about control and sharing of music, leading to an examination of a set of values developed by musicians around notions of fairness. The section then investigates the ways in which the aforementioned conflicts affect the musical content uploaded by musicians, and discusses the benefits and challenges of self-publishing in SoundCloud by grassroots EDM musicians. It finishes with a discussion about the values attributed by musicians to digital music formats and online circulation online, as well as its repercussions within the worlds of grassroots EDM.

6.4.1 'Out of Control': Ripping, Sharing, and Fairness

Control of music circulation is a central feature in the recording music industry, and a great concern for independent musicians as well. As illustrated in disputes about

peer-to-peer file-sharing in the late 1990s, the affordances of these networks has disrupted the control of media distribution, and, as a result, once music in digital format is available online it becomes extremely difficult to control its circulation. This lack of control extends from peer-to-peers networks onto UGC platforms, mostly because they are unable to prevent users from downloading content without authorisation from rights holders, a process known as *ripping*.

Technically, the processes of downloading and ripping files from online platforms are similar. Users copy files available online onto a local storage device, but in the context of UGC platforms the two processes differ greatly in associated meanings and consequences for rights holders. On SoundCloud, musicians can allow their tracks to be downloaded, and musicians and rights holders often encourage users to do so, usually in exchange for money, attention, promotion (re-posting, liking, subscribing to email lists), or a combination of the three. Ripping a file, however, does not require consent from creators, rights holders, and platforms. Moreover, ripping does not require deep technical knowledge, and can be easily done via third party software or through websites designed to facilitate ripping of content. As a result, grassroots musicians are aware that they lose control of the circulation of their content once it is available on SoundCloud. In the words of one participant:

> once I upload to SoundCloud, the music is out there. There's nothing I can do to prevent people from ripping and sharing it. In my mind it's like, once I upload it, it's out there and anyone can take.

Participants are powerless in preventing their music from being ripped from SoundCloud, and the resulting pragmatic resignation has contributed to the development of a set of ethical values and guidelines about the practice. These values are informed by overlapping notions of fairness, authorship recognition, and potential promotional benefits (similar to those discussed in section 5.3 about unauthorised use of software). These three aspects are present in an event narrated by Otis Farnhill, the 18-year old aspiring professional musician.

Farnhill had a disconcerting experience when one of his tracks was ripped from his SoundCloud profile. In early 2015 Farnhill was contacted by an unknown producer through SoundCloud who offered to broker a deal to sign one of Farnhill's tracks to a

well-known independent EDM record label. In exchange for facilitating the deal, the broker-producer demanded credit as co-writer, which Farnhill refused because he is keenly aware of the high value of authorship and credit in the world of grassroots EDM. Following the refusal, the broker-producer ripped the track from Farnhill's SoundCloud profile, uploaded it to his own, and initiated negotiations with the label to release the track under his name. Luckily, Farnhill's music mentor knew the owner of the label, and after a lengthy exchange of emails (with screenshots of the brokering negotiation and proof that Farnhill was the original producer) the label suspended the release of the track under the false author's name. While this kind of scam is unusual, it highlights some of the big issues aspiring professionals face when using SoundCloud to circulate and promote music. First is the ease with which music can be ripped. Farnhill explained:

> it wasn't as if this guy had like gone to major lengths: all he's done was to put the URL for the track into a SoundCloud downloader online, which are just open websites, and he just downloaded from there and uploaded to his SoundCloud [profile]. So it wasn't as if he was doing anything really technical, it's something which anyone can do. SoundCloud unfortunately don't have much protection for that. Of course you'd be making a bit of a mistake to do that with a really big producer because they'd be a lot more upfront and tight with that, but for someone who is not signed to a label it's easy, obviously. It's something that I'm glad only happened to me once because it's such a huge deal and it causes a lot of problems.

Second, what concerned Farnhill the most about the episode was not that his music was ripped (this is expected), but the threats to his *credit* as the producer of the track and future opportunities. The attempted theft of his song was undeniably unfair (and potentially criminal), and it could have cost Farnhill more than just a lost release – it could have damaged his artistic *reputation* with a highly influential label in the subgenre he loves and plans to invest his musical future in. Farnhill explained that, had he not been able to prove he was the original producer, the label would probably have mistaken *him* for the scammer, and that, he explained, "is something that they take *very* seriously". The silver lining to the episode, according to Farnhill, is the attention and promotion received, because now,

> they've listened to my track, which they then featured and it's getting a release, so part of it feels like it was worth it, but at the same time it obviously took up a lot of time and it was quite worrying as well you know, cause he could have done it and taken the credit.

Farnhill also highlighted that in circumstances where fairness, authorship, and promotion are balanced, ripping has positive aspects, particularly when done by fans and other DJs. In these cases:

> I don't really have an issue with that. I mean, as long as my music is getting played you know? I'm not earning money from my music anyway, so I don't mind. For now it's promotion, I guess. You know, having people play my music, which is why I don't go out and try to stop it.

From his position as a young aspiring professional musician his immediate interest is to attract as much attention as possible, build a fan base, and, in the process, a career. Additionally, within EDM's attention economy, having one's track ripped and played by other DJs can be a source of pride, peer-recognition, and a sense of achievement – as illustrated by one participant: "some people email me asking for the high-quality version of the track, and that's how I know it's working, when people come to you and ask for it". Kroupa (mid-20s) recognises the positive aspects of having his music ripped, but having little control can be unsettling:

> I'm quite open viewed to ripping music… I mean, my friend was at a party where this person was playing [my music] and he was like messaging me that, "this girl is playing your song!" And I was like, "how did she get it? I just sent it to about 5 guys", but the Red Bull Music Academy uploaded it to their SoundCloud. So she told to my friend that she, like, ripped it from their SoundCloud. I wasn't… I didn't start like messaging her, "what are you doing?" or something angry. I was cool, I wrote her a message on Facebook saying that "if you want I can send all the music that I have, it's not like my hidden treasure or something". I kind of get it from a positive way. I wasn't negative about it. I was more positive because I saw that people liked it, and they are willing to play it, and even rip it from the SoundCloud, or YouTube or something.

Promotion, exposure and attention are valuable trading currencies for aspiring professionals (as examined in section 4.3.1). Not only do these musicians tolerate, but

in some cases encourage ripping or just share music freely because of promotional benefits. Thus, even though ripping has negative financial consequences, aspiring professionals recognise its benefits, and as illustrated with the cases above, given the right circumstances consider it fair-use. Moreover, as argued in section 4.3.2, financial revenue from recorded music circulated online is negligible for most participants, and those on the very far end of the professional side of the spectrum worry more about potential financial losses from ripping and unauthorised sharing.

The aforementioned cases of young aspiring professionals highlight the potential promotional advantages of ripping and unauthorised circulation. The trade-off, however, is more complicated for musicians with deeper financial investment in their music. Al Bradley (early-40s) unpacked the dilemmas from his position as music producer and record label owner:

> for someone with a label, you have your little bad guy and good guy on your shoulders. The bad guy is going "that's really bad, that's really bad because they're not buying it directly from you", and so on. But then, on the other shoulder, the good guy goes, "well, hang on, that guy might be DJing somewhere and someone might be hearing it". So you kind of have to weigh the pros and cons of that. I'd rather have somebody buy it directly from Beatport [an online music store] or something, but if they don't, then somebody's played it and then you can weight in on the thing of whether or not the money is even that much of a big deal anyway. I might be happy that people are just playing it [laughs].

Being unable to avoid unauthorised online circulation, the underlying views about ripping from musicians are informed by notions of *fairness*. From an aspiring professional's perspective, the idea of sharing music can be seen as *fair trade*, insofar as there are no disproportionate financial gains from the receiving end, and credit is attributed. For those on the professional side of the spectrum, ripping and sharing can be more complicated because (as argued in section 4.3.3) they subsidise their music activities with resources from their working lives, and would like higher financial rewards from their musical activities (both live performances but particularly from circulating recorded music). Furthermore, the complications of unauthorised circulation of music for those on the professional side also include issues about artistic reputation, authenticity, and integrity (as will be shown in section 6.4.2).

The underlying sense of fairness may inform musicians' practices about ripping and unauthorised circulation, but fairness also masquerades dubious activities. Being the main online hub for EDM musicians, SoundCloud is also a main source of music for those who cannot, or will not, pay for music. This is the case of a participant who, after a series of unfortunate events in his life, cannot afford to buy music for the time being. Living on a tight budget, he forages the internet for music, making him feel,

> like the hunter-gatherer thing: I know where to go tap my fucking fruit, berry, trees, you know? Get my shit, bring it back, and play it to whoever will listen.

He is ambivalent about the legitimacy of his online foraging activities though:

> I've tapped into quite a good underground electronic vein and it's a lot of my stuff now, cause I can't afford vinyl now, I cannot afford [to buy] MP3s. Most of the stuff I get is free, and that is through following the right groups on Facebook and SoundCloud where they are promoting new electronic music because that stuff is trying to get established, those guys want coverage. Not so much that they are probably agreeing that I can play this stuff – that is always a grey area legally – but this stuff is free and it's out there and it is shared. And I'm feeding off a lot of that stuff and pumping it out there, to good reaction.

He searches primarily for music made available for free by producers, but admitted ripping occasionally, which left him with conflicting feelings. He is aware that ripping tracks undermines producers' financial income, but in his view it is justified by the exposure provided, and constitutes fair compensation.

The benefits and dilemmas producers and DJs across the casual-professional spectrum face with regards to downloads and ripping are clearly different, but they are all characterised by the fact that they cannot control music circulation via UGC, and that in EDM's attention economy, exposure is a form of currency. However, the dilemmas and contradictions of circulating music via SoundCloud affect the content that musicians are willing to share online, and in some cases these have negative consequences for musicians and audiences alike.

6.4.2 Music Content, Self-expression, and Format Matters

When circulating music via SoundCloud grassroots musicians are powerless to control uploaded content from being ripped and circulated without authorisation, but not all resign without struggle. There is room, albeit limited, for the exercise of agency to counter lack of control, and musicians on the professional side of the spectrum are more likely to adopt methods to counter unauthorised (re)use of their music. Protection methods are more commonly used by participants with close ties to record labels, and, as signed artists, managers, and/or rights owners, they try to limit the potential damages associated with unauthorised circulation. Commonly used protection methods include: uploading excerpts of tracks (short vignettes and extracts); uploading low-resolution audio files; inserting 'watermarks' (sound bites and vignettes) or dropping the volume at strategic moments (such as just after or before a bass drop); and, in the case of DJs, hiding the track list of a set to prevent others from identifying songs.[80]

Uploading excerpts and low-quality files are popular methods, but there are downsides and they can be contentious within the world of grassroots EDM. Uploading low-resolution audio files is designed to discourage public performance (by DJs, who prefer high-resolution files) while simultaneously enabling private consumption. The methods can backfire because it reduces promotional potential by DJs, and incurs problems similar to those described (in section 6.3.1) by participants who uploaded rough mixes and incomplete tracks. A participant who asked to remain anonymous about this issue explained that:

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[80] Hiding track identification has a long history in dance cultures, see Brewster and Broughton's (2000) work on northern soul for an account of pre-EDM usage. It also follows the tradition of 'white labels' (promotional copies of records issued with a blank label) and label swapping. The development of content-ID algorithms has decreased the efficacy of the practice.

> for my label I don't want people to have a shit quality file. If they message me and ask "can I have a WAV?" I would send it to them… It's not about money, it's just because I don't want shit versions going around.

Uploading snippets, or excerpts, is also popular and arguably the most effective protection method because only parts of the track are offered, thus discouraging public performance (DJs use the long intros and outros to mix between tracks) as well as private consumption. Moreover, labels and producers commonly use short excerpts as pre-sale teasers and portfolio samples. Nevertheless, the usefulness of snippets is limited because, as explained by the Slovenian producer Vid Vai (mid-20s):

> I had this thing of just posting let's say, two-minute snippets, maybe that was the way to secure it a little bit. But then again I realised there is no point: I think the track should be uploaded in whole, but only after the official release.

Vai takes into consideration the commercial and promotional strategies of labels before posting full tracks, and he coordinates his uploads with those of the label to maximise visibility. Vai mentioned being inspired by marketing strategies of online retail outlets in his protection methods, and while these aim to counter economic loss, they can have negative impact on organic circulation (both authorised and unauthorised) and promotion (through re-posts and word of mouth). Furthermore, because snippets offer just a glimpse of the track, they tease audiences but do not offer listeners the experience of hearing it in full – a limitation that affects the potential for self-expression by grassroots musicians and audience enjoyment. As a result, musicians like Alan Roposa (mid-30s) reject the method because they believe it diminishes both their self-expression and audiences' appreciation:

> I give the full track. Because again, it's down to my personal approach to the world, because my music, I never, I *never* did this kind of "standard" dance music structure: intro, great *loop,* great *groove* but then after just 6 minutes it's dead. No, I like the *progression.* I like to play with it, that's why I always called myself a progressive [musician]. I don't do progressive house anymore, but I still do progressive music because I like this progressive structure, the arrangement. I like to *tell stories.* That's it, I'm a *storyteller*, this is basically it. Even my girlfriend tell me this, "you're a storyteller in the music". In my DJ sets I play from indie dance to nu-disco

> to some techno, to some old school techy stuff. I like to tell stories, I like, you know, the whole story, this was always my metaphor for doing it. I like to build landscapes with the music, and that's why I put the whole tracks because I think if you listen to my track you have to listen to it in whole to really get it you know?

His description of the progressive musical experience reflects many experiences cherished by fans of EDM (as discussed in section 2.4), including communal elements (dancing together), trance-like states (getting lost in the beat), repetition and variation (in the structure of tracks as well as the non-stop blend of music in a continuous DJ set), and the feedback loop between DJ and dancers. Circulating snippets and extracts of tracks online is not conducive to these experiences. When questioned further about ripping from his position as DJ and producer, Roposa argued that:

> I don't really have anything against piracy, no. I think… in a way of course I would like to… I lost in all these years a hell of a lot of money. I have *nothing out of it* basically you know? But still, I'm kind of a Buddhist, I take things as they are you know? So it's just the reality as it is these days.
>
> I want as many people to hear it as they can. And as a DJ I also don't honestly *buy* all the tracks. I buy when I really like, "wow! This track is so fucking good and special", then *I buy it*, immediately. But this is like 30% of my sets because I know this track I'm gonna play more often. But I don't buy all the fillers, so you know, 70% I rip them. I Google it and find some good piracy. I know that I'm nothing more special than anybody else, so I know that a lot of people think the same. They're going to hear my track and go like, "wooow! OK! OK… yeah… maybe… maybe not", and because he can find it for free on the net he will have it – if he couldn't find it for free on the net, he won't have it. Simple as that. So that is my approach to this kind of thing.

His notions about file sharing, ripping, and fair use of music are shaped by remarkable levels of resignation and pragmatism about ripping, unauthorised circulation of music online, and the behaviour of other musicians, namely DJs and how they select music and choose to buy when deemed useful and fair. The fact that music is unprotected from ripping is taken as "the reality as it is these days", and it informs his selection process according to the quality and function of the track ("bangers" and "fillers"),

and, as other participants highlighted, its sources. Most participants declared they are more inclined to buy tracks from independent producers and independently-run labels than EDM stars and major labels. Moreover the quote highlights the abundance of music available in digital format, its low financial value (as discussed in Chapter 5), and how the abundance of music in digital format has reinforced the subcultural values associated with vinyl records.

As shown in the discussion about vinyl records in Chapter 5, the medium used to release music affects the subcultural values attributed to the recording and artists' reputations. These subcultural values also affect how the circulation of music through SoundCloud is perceived among grassroots EDM musicians: digital releases are generally considered less prestigious, even though they facilitate music circulation by requiring lower financial investments, bypassing gatekeepers, and circulating faster through digital communication networks. In the words of Richard Fletcher (late-20s):

> I think because it is so easy for anyone to release music now, you get a lot of terrible stuff that you have to wade through, but then you do get some gems that you wouldn't have got if it had been a traditional vinyl-only kind of platform. So it's a funny one. I've always thought of vinyl as a way of, it's like a form of quality control: you're not gonna press a track that you don't really like onto vinyl cause it costs a lot of money and it's quite a process. Whereas digital you can just make a track and throw it out there. But vinyl is a way of kind of quality control because you can only do so many releases a year and there's certain restrictions in it.

The complex combination of economic and subcultural values associated with the format and circulation (both in digital format and vinyl) is illustrated in (an uncorroborated) case reported by a professional DJ, who asked for anonymity on this issue. It takes place within a 'vinyl-only' circle of minimal dub techno in Berlin, where DJs are evaluated according to their skills, knowledge, and more importantly, collection of records. The main challenge for aspiring DJs in this niche group is to find new music, and while minimal dub techno is abundant online, digital DJing is forbidden, thus greatly reducing the pool of music available for DJs in that circle. Consequently, rare and/or new records are hard to find and have very high subcultural value. To solve this problem, a wealthy DJ in the group (who made his fortune selling his tech start-up company) bought a dub plate cutter, and uses it to make exclusive

records from downloaded digital music files.[81] In other words, he benefits from the abundance of music circulated in digital format online, and the subcultural capital associated with records, extracting the best out of the abundance of digital and scarcity of vinyl.

As shown in the discussion about the subcultural value of vinyl records (section 5.3), music media formats matter in the world of EDM, and subcultural values associated with music formats extend beyond objects, and are also applied with regards to the networks music circulates through. 'Digital-only' music labels that use online platforms to circulate music have lower prestige than labels releasing vinyl. Summing up the differences between digital and vinyl releases to labels, Al Bradley (early-40s) argued:

> the difference between a digital label and a vinyl label is that with the vinyl label you think "ok, well somebody's put on the passion and the money" and so on into that. But by the same score, because you don't have as many costs to run a digital label it kind of opened up a DIY ethic, which was always kind of there with electronic music, to some degree, well, to a large degree. But the hindrance was always financial: can I afford to get 250 vinyl [records] pressed, and sleeves and etc, and you have to weigh all that kind of thing up, and if you only get to sell 20 of those then "Jesus! I've lost loads of money". There's no particular risk involved with digital, unless you're paying for a really good remix or something like that. So, the two things kind of run in parallel: the vinyl is the quality side, with the passion and the cost and so on, but the digital… someone who is possibly really creative and has a brilliant idea but just hasn't had the financial ability to do it, has gone "great! I can try to put myself into this right now". You know, there's lots of digital labels which are equally as passionate as people who do vinyl, but,

[81] Dub plates, acetate records, or nitrocellulose lacquer coated disks, are covered with a softer material than vinyl, and are created by using a recording lathe to cut a groove from a modulated audio signal. Making them is time-consuming and requires expensive equipment operated by skilled audio engineers. However, Fraser and Ettlinger (2008) explain that even though "dub plates have a short shelf life […] and can only be played ten or so times" (p.1649), they are cheaper to produce in small-scale than vinyl.

> there's this thing about the 'realness' of vinyl. There's arguments for and against that.

Bradley's quote illustrates the ambiguity of abundance of music in digital format being circulated online, as it has pros and cons for grassroots musicians with notable repercussions according to their ambitions and socio-cultural positions within the world of EDM. The emphasis on the 'realness', scarcity, and value of vinyl is often used to devalue the efforts of those who use digital networks to circulate music across the world, and potentially undermines the benefits it offers for grassroots musicians (easy access, lower-entry levels, global reach). However, Bradley is right to suggest that digital communication technologies have facilitated self-publishing by aspiring professionals, and, because these networks have global reach, media scholars like Manovich (2009) argue that in the context of media production, "often it is no longer possible to talk about centers and provinces" (2009, p.200). Manovich is right to point out that cultural production has been decentralised, but only within a limited context and without proportional opportunities for associated cultural activities (like live performance). Ultimately, geographic places (still) matter.

Online platforms like SoundCloud provide increased connections between people through the circulation of music, yet they have not completely disrupted the importance places have for grassroots EDM musicians. In fact, recent research from Allington et al. (2015) about musicians' social connections on SoundCloud suggests the platform *reinforces* the importance of places such as London and New York as main socio-cultural hubs to EDM musicians. The authors argue that symbolic values associated with music are created not in isolation, but rather socially, via "the *act of valuing"*, which is generated "within a social network" (2015, p.211, original emphasis). Their focus on musicians' social networks that exist on SoundCloud is significant for grassroots musicians because it reveals these social formations "are fundamental to cultural history" and "to cultural production in the contemporary world" (p.212). Moreover, they argue that the social networks in SoundCloud reflect those found in the offline world, leading them to the conclusion that the platform reinforces the role places have in fostering cultural production. They conclude that:

> expressions of esteem on SoundCloud appear to circulate primarily (a) within cities, (b) between cities located within the same region, and (c)

> towards a particular set of cities with large cultural economies and a strong association with electronic dance music (p.219).

In Allington et al.'s view, the online distribution of EDM worldwide reflects current patterns of cultural concentration in large metropolises, defined by a hierarchy of cities: a first tier constituted by places such as London, New York, and Los Angeles; with a second tier consisting of Paris, Berlin, and Chicago; followed by other places outside the axis of "Western Europe and the Anglophone world", who "tend to occupy peripheral positions" (2015, p.211). Their conclusions run contrary to the assumption that online circulation of music has disrupted pre-existing networks, value systems, and the socio-cultural importance associated with EDM's main hubs. Ultimately, the authors argue that the value of arts and culture,

> is in itself a reification. These things do not have a value. Rather, they are valued by specific people, and in specific ways. And such valuing is characterised by exclusions and inequalities of a very familiar sort, even when it is carried out through "new" media […] place continues to play an important role in the valuing of electronic music (p.219).

The investigation of grassroots EDM musicians in Leeds and Ljubljana suggests that while the circulation of music online has contributed to expanding electronic dance music culture globally, it has also reinforced the influence exerted by the main hubs of electronic dance music culture (the first and second tier cities that Allington et al. (2015) refer to). In both Leeds and Ljubljana the vast majority of music played by DJs was produced elsewhere, and acquired online (in digital and physical format). Moreover, at the time of the research both cities had local independent EDM labels, but no specialised electronic dance music record stores, and musicians relied almost exclusively on online sources for their music in digital and physical formats. Participants declared buying records from online retailers, including stores (like Beatport, Juno, Wax), directly from labels, and second hand marketplaces (like Discogs). Moreover, while online sources are very useful – particularly for musicians further away from the main cultural hubs – they also contribute to standardising the kinds of music played, thus reflecting what Straw (1991, p.381) has identified as the globalised nature of the consumption of electronic dance music, and localised centres of its production. And lastly, it is important to remember that grassroots cultural

production relies on local infrastructures to support long-term sustainable activity, including venues, record stores, music studios, public policies, and a thriving cultural landscape that exists largely independent from SoundCloud and other online platforms for music circulation and promotion.

This section has analysed how the affordances of SoundCloud and the lack of control of uploaded content shapes grassroots EDM musicians' views about ripping and downloading music. It argued that participants have developed an internal set of values around the notion of fairness based on the attribution of credit and potential gains via exposure. Thus, these notions of fairness inform much of their behaviour, as well as as how they evaluate others'. In the discussion about music content, the section examined the dilemmas about protection methods, highlighted their limitations, and argued there is insufficient evidence supporting the idea that promotion has had significant effects on grassroots EDM music production, in large part because musicians are concerned with negative associations of (self)promotion to their music and artistic identities.

6.5 Conclusions

This chapter has examined the circulation of music on SoundCloud by grassroots EDM musicians. The analysis of the political economy of the platform revealed how its affordances allow users to freely upload, publish, circulate, and promote music in digital format, thus bypassing gatekeepers that exert large control over the distribution, promotion, and sale of recorded EDM in physical format (including record labels, distribution companies, specialised music media, retailers). As a result, online platforms like SoundCloud have contributed to lower entry-levels (technical, legal and financial) for musicians to publish music online, thus facilitating its circulation on a global scale. However, as demonstrated throughout the chapter, musicians are faced with challenges, including lack of control of content once it is made available online, and greater incentives to: (1) (self)promote through online presence and management of multiple profiles in different SNSs; and (2) to increase online traffic to their profiles, boosting exposure to audiences and driving ad-based revenue for platforms. The benefits of using SoundCloud for participants on the professional side of the spectrum are accompanied by a number of dilemmas and

potential negative experiences, as illustrated in the discussion about unauthorised circulation, the consequences of using protection methods, and lower subcultural value associated with music circulated online.

The analysis of the political economy of SoundCloud and its recent financial struggles highlighted two important elements shaping grassroots EDM in the platform: conflicts of interest, and the complex internal structure of the platform. The analysis of the conflicts of interest in SoundCloud focused on the articulation of power among three key actors – the platform, its users, and rights holders – revealing that users are at a disadvantage. In late 2017 another actor emerged from backstage — financial investors the Raine Group and Temasek (Ljung, 2017) – and took over the management of SoundCloud. This new force re-articulated ownership, management, and the balance of power among actors, and could significantly change the landscape for grassroots musicians as new management reshapes the company for a profitable 'exit strategy' – which typically takes the form of an initial public offering or the acquisition of the company (Cumming and Johan, 2008). Regardless of outcome, users have had little-to-no say about these changes and the future of the platform they have helped to grow. At best, the stewardship of the new managers will incorporate musicians' best interests in development plans, and, at worst SoundCloud may follow in example of Myspace and lose its meaning and function for its core user-base, including large numbers of EDM musicians.

The second important element for understanding grassroots EDM production is the complex internal structure of the platform (the key actors aforementioned) and the fast pace of change. The complexities and changes examined on SoundCloud affect grassroots cultural production, and its analysis followed Sterne's (2014) suggestion to rethink the analytical approach with regards to the music industry:

> when we go looking for unity inside a music industry, we should instead assume a polymorphous set of relations among radically different industries and concerns, especially when we analyze economic activity around or through music. There is no "music industry." There are many industries with many relationships to music (p.53).

Paraphrasing Sterne, the 'music-tech industry' is made up of many industries with many relationships to music. The complexity and speed of change in the music

industries (accelerated by the growth of the technology sector) offers analytical and theoretical challenges, and Wittel (2017, p.251) argues that we need new frameworks to understand "the political economy of digital technologies" (PEDT). The expansion of digital technologies, Wittel suggests, requires a change of paradigm in political economy of media and communication because "digital technologies are not just media technologies but technologies that are at the heart of all industrial sectors" (2017, p.251), which as the evidence in this chapter reinforces, also includes the financial sector. SoundCloud started as a tech start-up designed by and for musicians, and its growth attracted the interest of financial investors. Thus the development of PEDT may offer useful tools to investigate similar issues because it "is about political economy that is as much interested in the financial sector as it is interested in media" (Wittel, 2017, p.255). Moreover, PEDT also embraces a Marxist-based analysis of labour and property which could, Wittel argues, move forward "the debate between those who support free culture and those who are concerned about the exploitative nature of free labour" (2017, p.266).

Bringing together a macro and micro analytical approach may prove useful to begin unpacking the complexities identified by Sterne (2014) and Wittel (2017) in regards to UGC platforms. The analysis of the political economy of SoundCloud aimed to contribute to our understanding of how internal structures of UGC platforms (and their changes) impacts grassroots cultural production. Additionally, the timing of this research was fortunate in focusing on musicians' practices and experiences while SoundCloud was undergoing significant changes, with uncertain consequences for its core group of users. Thus, the chapter has aimed to contribute to the debates about free culture and free labour through an examination of how grassroots EDM musicians navigate the benefits and challenges offered by SoundCloud, as illustrated by the examination of participants' notions about fairness.

The notion of fairness, or fair-use, developed by participants stems from their resignation about the lack of control of uploaded content and the enforcement of copyright legislation. Problems associated with copyright legislation are not exclusive to grassroots EDM musicians, and scholars have argued that it has failed to regulate consumer behaviour (Edwards et al., 2012) and that revisions are required to better accommodate the needs of contemporary media producers (Lessig, 2009).

Participants' perspectives of fairness are shaped by attribution of credit (authorship) and potential exposure via promotion (both via self-promotion and by third parties). Moreover, participants argue, the benefits of using SoundCloud to circulate music compensates any potential downsides from the platforms' monetisation of their activity, thus participants' views are aligned with findings by Kennedy et al. (2015) about users' perspectives on social media data-mining. Participants' notions of fairness follow the principles of fair-use identified by Kennedy et al. (2015), namely "contextual integrity in practice" – including "appropriate informational norms" and the "rights and responsibilities (of platforms and users)" (p.17) – and "philosophical ideas about well-being and social justice" (p.17) as argued by Hesmondhalgh (2013b). These principles inform *internal* notions of fairness among musicians, and the challenge musicians face to enhance their artistic integrity and material wellbeing (via increased revenue) lies within the extension of these principles to audiences and intermediaries (like online platforms). In large part, Bandcamp has been praised and adopted by many aspiring professional musicians because its business model incorporates some principles similar to those of fairness as developed by grassroots musicians, illustrated in its ethos of transparency and 'fair trade'.

Promotion is an important topic throughout the chapter, and the examination of participants' online presence and strategies to attract attention highlighted the increasing role of promotion in grassroots EDM activity. Grassroots musicians are not alone and "promotional imperatives have come to influence the behaviours of whole organizations, professions and institutions" (Davis, 2013, p.1) which, in the case of music, includes businesses (Meier, 2017), musicians (Klein et al., 2016), and as this chapter argues, aspiring professional musicians' circulation of music online. Evidence from participants corroborate Davis' (2013) claims that high rates of promotional activities are linked to individualism (p.193) and neo-liberal marketization of society (p.197), which in turn are connected to competitive individualism and defensive networks found in cultural production and creative labour (examined previously in Chapters 4 and 5).

Participants have ambivalent reactions towards promotion when circulating music in SoundCloud. For example, re-posting tracks on SoundCloud is a form of promotion that can be understood as co-creative practices, which Davis (2013) argues can help

to build individual and collective identities, albeit in limited ways (pp.39-41). However, participants tread a fine line when encouraging others to re-post music because in the grassroots worlds of EDM investigated, promotion (especially self-promotion) is a controversial topic, as demonstrated by the case of the professional DJ who adopted the strategy of social *not*working and the difficulties of aspiring professionals in finding the appropriate balance of quality and frequency of uploads, posts, and other online activities designed to attract attention. The challenges in balancing positive and negative aspects of promotion are even greater when using SNSs to circulate and promote music because there is evidence linking frequent users with increased levels of self-promotion and narcissism (Buffardi and Campbell, 2008; Carpenter, 2012). Moreover, participants argued that managing their online presence required considerable resources that were not invested in music-making activities, an issue raised by Wu (2017) in the context of heavy Instagram users. He explains that "in addition to composing and shooting photos, the feed demands interacting with strangers to make them feel engaged or heard, the way a politician or other public figure might – the way a real celebrity doesn't have to do" (Wu, 2017, p.313).

In spite of all the challenges associated with promotion and self-promotion, it is imperative for aspiring professionals to understand the logic of promotionalism if they are to have successful careers. Understanding its underlying logic allows musicians to take advantage of the best aspects of promotional practices and try to avoid undesired consequences. Evidence from participants suggests that grassroots musicians have a good functional understanding of promotional practices, and have largely embraced it in their strategies to circulate music and attract attention on SoundCloud. However, there is not enough evidence supporting the idea that they have adapted their musical production for promotional purposes, and in fact, data shows that a number of tensions arise when promotional drives intersect with music-making. In other words, participants want attention, but they also need to balance efforts to get it with notions of artistic authenticity, personal identities, and the pitfalls of over self-promotion.

Chapter 7
Conclusions

7.1 Overview of the Research

The main objective of this thesis has been to investigate contemporary cultural production by examining the experiences and practices of grassroots EDM musicians. The analysis of grassroots EDM production was set within the broader context of cultural production and optimistic discourses about digital technologies. Thus, this thesis has analysed the opportunities and challenges cultural producers face as they pursue their objectives using digital technologies. Chapter 2 provided an overview of the analytical frameworks developed by various intellectual traditions from a variety of fields concerning cultural production, namely cultural labour, critical media industries and production studies, sociology of culture, critical political economy, cultural studies, and popular music studies. Furthermore, it laid out how each field helps to unpack the complex balance of the benefits and problems musical activities offer to individuals and the social groups they are in. Chapter 3 discussed the research design, methods, and ethical concerns taken during the project. Throughout Chapters 4, 5, and 6 I analysed grassroots EDM musicians' activities, and examined their practices and experiences through an investigation of their motivations, production conditions, pathways for music education, how musicians make and play EDM, as well as their efforts to circulate and promote music through the online platform SoundCloud. The focus on musicians' practices and experiences has brought a micro-analytical perspective of cultural production, and it was contextualised with a macro analysis of structures and institutions that inform and influence contemporary cultural production. In doing so, I have brought micro and macro analysis together, with the goal of contributing to the scholarly fields I have drawn from, as well as the debates they engage with.

I have pursued the objective of the thesis by asking:

1) To what extent do changes associated with digital communication technologies facilitate the musical practices of grassroots musicians?

2) How do these changes affect grassroots musicians' experiences?

Throughout the thesis we have seen that grassroots cultural producers in general have benefited from many of the changes associated with digital technologies for communication as well as those used in making and circulating music. Nevertheless, there are still significant constraints to their activities on personal, collective, economic, and cultural levels. During the analysis of musicians' experiences and practices I have highlighted that the balance between opportunities and challenges varies according to each individual's position on the casual-professional spectrum. In short, musicians on the casual side tend to have more positive experiences aligned with their light-hearted and uncompromised ambitions, reinforced by the affordances and availability of resources for casual EDM production. In this sense, casual musicians' activities are facilitated by digital technologies in ways that foster greater levels of creative and self-expression, accessible pathways for music learning, greater access to the tools required to make and play EDM, and convenient tools to self-publish and circulate music via UGC platforms. Serious and aspiring professional musicians enjoy many of these benefits, but, having markedly different goals, they find themselves in a much more complex situation, and the pathways available to achieve their ambitions are littered with pitfalls, dilemmas and contradictions. The rest of this section reviews the most significant issues concerning grassroots musicians as cultural producers.

Chapter 4 demonstrated that grassroots musicians are motivated by a varied and complex set of motivations. These incentives include the potential for creative (self)expression, building identity and sense of belonging, self-realisation, sociality, recognition (by peers and audiences), and in the case of aspiring professionals, a career in music. Overall, participants highlighted mostly *positive* aspects of their motivations, and this is consistent with their position as *active* cultural producers. Throughout the project I met inactive musicians who, for various reasons, have set aside musical activities. In my conversations with these musicians, their justifications for being inactive were expressed through a range of feelings, from resignation and frustration, to cherished memories of a time when music-making provided valuable meanings and pleasures. In spite of unfulfilled dreams and ambitions, the fondness inactive musicians carry for their musical pasts reinforces the value of musical

activities on a grassroots level, and highlights its potential to contribute to a better and flourishing life which, unfortunately, is unavailable for those who cannot participate.

The analysis of the production conditions (section 4.3) revealed that grassroots musicians' material wellbeing is important, and that how they earn their living influences cultural production. This is unsurprising for professionals, and has been explored in literature about the sociology of culture (Becker, 2008; Bourdieu 2000), cultural labour (McRobbie, 2002; Stahl, 2013), and popular music (Cohen, 1991; Jones, 1992; Reitsamer, 2011). However, material wellbeing supported with revenue from paid work is also important for grassroots musicians, and this project has shown that grassroots musical activities in the worlds of EDM are largely subsidised with resources redirected from musicians' personal lives and waged-activities. In this sense, grassroots musicians across the spectrum must balance time, money, and emotional resources. They do so by reallocating resources obtained from several activities (from music, life, and work) according to their commitments, ambitions, and constraints. Because casual musicians are not concerned with financial rewards, they find it easier to reallocate and balance resources, but this is not the case for serious and aspiring professionals. The dilemmas these musicians face were explored in the discussion about unpaid work and exposure, revenue streams, and the balance of resources needed to sustain *serious* and *long-term* musical activity. Balancing resources to sustain musical activity is not easy, and a veteran musician described feeling "like I have become a professional-amateur". The apparent contradiction in the term 'professional-amateur' illustrates the dilemmas and duality of grassroots musical activity as *labour of love* – a mixture of pleasures and pains associated with leisure, work, and their intersections. The challenges facing serious and aspiring professionals reiterate Jones' (1992) claims that "virtually anyone can make popular music, even though not everyone can 'make it' (financially, creatively, etc.)" (p.11).

Chapter 5 showed how increased learning pathways and greater access to musical tools facilitates grassroots EDM production. With regards to education, grassroots musicians rely largely on what Green (2002) calls informal learning strategies. Online platforms like YouTube contribute to informal learning by offering access to vast amounts of information, such as video tutorials and other content suitable for observational learning. As useful as it is, online learning has its limitations, and

serious musicians commented about the low quality of content (through superficiality and product demos) and what they consider restricted technical instructions (like troubleshooting minor technical issues). Given participants' interest in EDM production and their skill level, there seems to an apparent lack of content on YouTube designed especially for advanced musicians – which could be developed further.

Formal education in higher education and music technology courses has also increased for EDM musicians, but the experiences of participants reiterate the limitations raised by Born and Devine (2015), particularly in regards to class and gender. Moreover, the chapter argued that education about EDM-making has raised the quality of production and technical expectations of those with degrees. The discussion about audio compression in the mastering process examined the technical gap between formally and informally educated musicians; and showed that improper use of compression can have damaging consequences for grassroots musicians who lack deep knowledge about the technical and cultural meanings in the debates about compression. Music education is essential for musicians, and online informal learning can offer valuable (albeit limited) information. As Stowell and Dixon (2014) argue, online informal learning provides valuable complementary information to formal music education.

Increases in education have been paralleled with greater access to tools for EDM production and live performance. These changes have lowered financial and technical entry-levels for grassroots musicians, but they have also increased tensions within the worlds of EDM. The discussion about cheaper and more accessible home studios and digital DJing highlighted how networked computers and digital music formats facilitate the production and performance of EDM. Consequently, more people are able to make and play EDM, increasing the amount of musicians and music available. Musicians who adopted digital tools for making and playing EDM have successfully developed and embraced a new set of practices and values. While recognising the symbolic meanings associated with objects, devices, and practices of traditional EDM cultures (like vinyl records, analogue synthesizers, and beat matching) musicians who have embraced digital technologies for making and playing EDM have challenged (some knowingly, others not) EDM's traditional hegemonic discourses and values. As a result, the status of well-established traditionalists in EDM worlds is questioned,

and the discussion about beat matching and digital DJing highlighted internal tensions in the world of grassroots EDM – these tensions combine issues about (sub)cultural status, values, and material wealth. For example, the subcultural value of vinyl records is driven by a celebration of its symbolic meanings, but it undermines the efforts and status of musicians who rely on digital technologies to play EDM.

The tension between those who play with vinyl and those who use digital formats runs alongside subcultural and economic status, and in this sense, the emphasis on the symbolic value of vinyl can also be understood as a form of *distinction*. Bourdieu (2000) argues that taste cultures are defined by a mixture of aesthetic, cultural, and class status. In the case of vinyl purists, the taste for the media format carries cultural, aesthetic, and also economic implications. Thus, because records are a more expensive media format, overemphasising its subcultural value also operates as an economic barrier for potential entrants. The examination of participants' workflow relocated the debates about music formats to the realm of creativity, skill, and control (as in technical expertise), and showed that on the grassroots level musicians must negotiate their limited resources (instruments, skills, time, subcultural capital) according to their subcultural position and objectives – as illustrated by Kroupa's praise of creativity via digital technologies to criticise restrictive gatekeeping by traditionalists.

Alongside access to music and music production software, the possibility of self-publishing and circulating music online is another of the greatest benefits grassroots musicians enjoy from digital communication technologies. Chapter 6 examined the political economy of SoundCloud, and showed how the affordances of the platform, its business model, and the underlying conflicts of interests among key actors shape grassroots musicians' practices and experiences on the platform. The circulation of music in SoundCloud is also a form of promotion, and it is informed by what Wernick (1991) calls promotional culture, or promotionalism. As Davis (2013, pp.39-42) suggests, promotionalism offers advantages beyond exposure to new audiences. Circulating and promoting music on the platform facilitates social relationships with audiences and helps establish contact with peers and music industry insiders. Nevertheless, casual musicians are less prone to promotionalist practices because these do not fully serve their leisurely interests. On the other side of the spectrum,

serious and aspiring professional musicians are encouraged to have strong online presences and adopt strategies to maximise exposure. In doing so they become aware of the logic of promotionalism, which permeates the circulation of music on SoundCloud.

Understanding promotional strategies is important for musicians, but promotionalism has potentially negative consequences for musicians on the professional side of the spectrum. The chapter examined these negative issues primarily in the discussion about online presence and strategies to attract attention. The most significant problems musicians face when promoting on SoundCloud are associated with the normalisation of promotionalism and a culture of self-promotion on the platform, which pose serious challenges to participants' online identities and can increase individualistic competition. The former issue was illustrated in the examination of participants' dilemmas in choosing which platforms and promotional strategies to use, and the latter in the temptation to artificially boost numbers of plays, followers, and feedback. These findings corroborate the argument by Aronczyk and Powers (2010), who argue that promotionalism is highly problematic because "information and communication are prime sources of capital" (p.7) and:

> as the self becomes thoroughly instrumentalized, so do we increase our promotional capital to meet and respond to such instrumentalization. By performing our promotional selves we convert moral values into market value and back again. We allow a singular vision of success to dominate the conversation (pp.17-18).

Despite the pervasiveness of promotionalism in SoundCloud, participants are resilient to its influence when producing EDM. I argued that on the grassroots level, the value attributed to artistic authenticity plays a key role as it is often opposed to overly commercially-oriented music production.

Having overviewed the main findings of this research, we now turn our attention to how it contributes to the scholarly fields it draws from.

7.2 Original Contributions

The study of grassroots musicians is largely marginalised in popular music studies, but developments in digital technologies, and the changes associated with them, have drawn more attention to these musicians (as shown in section 2.3.1). Musical activity in EDM offers a good case for investigating how technology intersects with music production and creativity (Toynbee, 2000), as well as how technology is intricately connected with cultural, social and economic spheres, including institutions such as the music industry, education, spaces, and practices for cultural consumption.

Throughout the thesis I have used the notion of a set of shared values in EDM to contextualise musicians' contemporary discourses and practices and highlight contradictions. For example, the discussion about networked sociality and competitive individualism in Chapters 4 and 5 challenges notions of egalitarianism and openness associated with early dance cultures (section 2.4.2). In Chapter 5 the analysis of the subcultural value associated with manual beat matching and the renewed importance of vinyl challenges notions of technical and creative innovation through the (re)appropriation of devices for music-making (section 2.4.3). However, as used in this thesis, the notion of genre as a set of shared values touched lightly on historical change, and when it did it was mostly to contextualise the meanings of foundational mythical elements of early dance cultures in contemporary EDM practices. Lena (2012) argues that genres change through time, along with the norms and conventions that define them. It is true that the shared values associated with genres are also open to historical change, and the contradictions between values held by contemporary EDM musicians and those of their predecessors highlighted in this thesis illustrate the case. The objectives of defining the shared values of early dance cultures was not to defend a traditionalist vision of EDM cultures (that is, the mythical *problem* highlighted in section 2.4.1), but: (i) to identify fundamental common characteristics of early EDM cultures; (ii) to highlight the ideals that pushed early dance cultures to become powerfully progressive and innovative forces in music and society; (iii) to inform a set of contemporary 'best practices' based on these values and inform an underlying normative framework; and (iv) to draw attention to the meanings these values hold for participants. The fact that participants held on more firmly to some past conventions (like vinyl, DIY) and not others indicates the

persistent importance these meanings have today even as they as challenged by the adoption of new technologies.

As explained in section 2.2.2, the emerging field of critical media industries studies was influential in the analytical framework used in this thesis. Throughout the investigation of grassroots EDM cultural production I brought together a microanalysis of musicians' activities and contextualised it with a macro perspective largely informed by political economy, sociology of culture, and cultural labour. In doing so, I followed the call of Havens et al. (2009) for more attention to issues of power and autonomy of cultural producers through empirical work about production and "a concern with the material impact of the media industries within the cultural, social, and political spheres" (Havens et al., 2009, p.249). The main contribution of this thesis to CMIS is not to its theories or methods, but by focusing on cultural production at the very *grassroots* level. In examining under-the-radar EDM musicians' activities and practices, the thesis has highlighted: how "alterations in the production process" affect not only the cultural texts "that project into our homes" (Lotz, 2014, p.4) but that are *made* in our homes; how material conditions influence cultural production (Perren, 2012, p.5) in the examination of grassroots musicians' material conditions individually and as a group; and "the role of human agents" and "the quotidian practices and competing goals […] which define the experiences of those who work within the industry" (Havens et al., 2009, p.236), as well as on its margins.

The investigation of grassroots cultural production also contributes to production studies, and its goals to understand "this notion of production as culture" (Mayer et al., 2009, p.2). As is the case with CMIS, the contributions of this thesis are largely empirical, and follow the suggestion from Paterson et al. (2016) for more research on "the influence of grassroots production, participatory and collaborative production, the impact of social media, as well as the use of production software and hardware" (p.7). The topics raised by these authors were touched upon throughout the thesis and I demonstrated that they are intricately connected in grassroots EDM production.

Researchers interested in cultural labour have (rightly) focused on professional cultural producers' lives, experiences, and activities. These workers enjoy significant positive aspects from working in the creative industries – including the potential for

self-realisation, expression through creative and meaningful work, and, as Hesmondhalgh and Baker (2011, pp.30-35) argue, the chance to do "good work" that contributes positively to themselves and society. Nevertheless, cultural workers also face negative aspects, such as precarious working conditions, long hours, low pay, and the downsides of what Wittel (2001) defined as 'networked sociality'. This combination of pros and cons shapes not only what they produce, but their experiences and livelihoods. The examination of under-the-radar EDM production has touched upon these issues, and adds another set of questions as it includes grassroots musical activity by musicians throughout the casual-professional spectrum. Clearly, aspiring professionals share many of the same problems as their professional counterparts, but they also enjoy many of the benefits highlighted by casual musicians – for example as shown in section 4.3 with regards to music work, exposure, revenue, resource management, and the importance of day jobs in supporting cultural production at the grassroots level. The spectrum allows us to better understand the nuances of grassroots cultural production, and how musicians' experiences and practices vary accordingly.

The analysis of grassroots EDM production pushes debates about exploitation, autonomy, and power in cultural activity towards a nuanced approach. These debates have been largely polarised. In one camp, scholars criticise 'free labour' as open to exploitation (Terranova, 2000) and, in the online context, as coerced by hegemonic capitalist ideology (Fuchs, 2014, p.254). In the other camp, there are those who emphasise positive aspects associated with 'free culture' (Benkler, 2007; Doctorow, 2008; Lessig, 2009) such as collaboration, pleasure, and the 'wisdom of the crowd'. While both camps raise important and relevant issues regarding grassroots cultural production, this thesis follows a nuanced approach as suggested by Hesmondhalgh (2015) and Wittel (2017). The latter expands on Marxist concepts to investigate "labour, value, and property […] in the age of digital and distributed media" (Wittel, 2017, p.252). This nuanced approach helped the analysis of the complexities, contradictions, and dilemmas in grassroots musicians' activities, including: their (apparently) uncontroversial integration of unpaid work as a pathway for exposure (section 4.3.1); the development of an internal system of values to assess notions of fairness (section 6.4.1); and revenue and the allocation of resources (section 4.3.2) to support the difficult balance of music, life, and work commitments (section 4.3.3). Moreover, this nuanced approach to cultural labour was matched with the

investigation of grassroots EDM production through the casual-professional spectrum, which allows for detailed analysis and perspectives about musicians' priorities, challenges, and needs.

The analysis of macro institutional actors in this thesis drew upon frameworks from critical political economy of media and communication. However, while they provide useful tools for the analysis of institutions involved in cultural production, they do not account for micro level analysis of production and the complexities facing grassroots cultural producers. In an ambitious proposition, Wittel (2017) suggests a 'new' approach to analyse the *political economy of digital technologies* (PEDT), because:

> it is exactly this distinction between media technologies and other technologies and between media products and other products that has become increasingly blurred in the digital age. Now, almost all technologies are at the same time digital technologies (p.254).

While PEDT is in early development, it provides useful frameworks for the analysis of grassroots cultural production because, Wittel (2017, p.266) suggests, it offers alternatives to the stalemate in the aforementioned debates about 'free labour' and 'free culture'. PEDT is also useful for analysing musicians' activities online and offline because, as Wittel (2017) argues:

> it all boils down to the simple fact that capitalists are not willing to support free labour for altruistic reasons and those who are exploited earn just enough to maintain their own subsistence (p.267).

By shifting the focus from (mass) media and communications (which is largely focused on institutions and professional activity) to digital technologies, PEDT offers tantalising theoretical tools to the investigation of cultural production in the 'digital age'. Moreover, studies about grassroots media production have the potential to contribute with the further development of PEDT because they are deeply embedded with digital technologies as production tools and as actors shaping cultures of production.

The examination of the political economy of SoundCloud and its underlying conflicts of interest (Chapter 6) highlights underlying important actors (rights holders, technology companies, and financial capital) and their intersections with grassroots

cultural production. Moreover, the investigation of musicians' use of SoundCloud has shown that the complex (and often conflicting) interests between actors (and increasingly financial capital) have important consequences for grassroots musicians. The consequences of these power articulations include not only how musicians use the platform and what they upload, but also potentially its demise as the main hub for grassroots EDM musicians. Most likely they will withstand the conceivable loss of SoundCloud – in his work on Myspace, Mjos (2013) showed that while the platform was very important for musicians in the mid-2000s, they eventually found new alternatives. However, when musicians lose a platform like Myspace or SoundCloud they not only lose an important tool to circulate and promote music, they are also deprived of the collective effort and socio-cultural capital invested in building reputable identities and social networks on these platforms. SoundCloud is important for EDM musicians, and the examination of the intersections between the actors involved helps us to understand issues about creativity, power, and autonomy that shape the production and circulation of popular music online. The on-going nature of these articulations deserves monitoring and further research.

Having reviewed the contributions this thesis offered to the intellectual traditions it draws from, we now look at the limitations of the present project and how these may be addressed by future research.

7.3 Future Research

The discussion in Chapter 3 about the limitations of the research pathway (section 3.5) briefly highlighted issues that would be well served by further investigation. The first concerns the question of gender in EDM, and in cultural production in general. Female musicians are underrepresented in positions of power in the worlds of EDM, with a proportionally lower number of them being booked in clubs, festivals (Ohanesian, 2016) and involved with grassroots EDM activities such as workshops (Abtan, 2016). Having been attentive to these issues, I aimed to address them with purposeful selection (Maxwell, 2005, p.90) of participants and analysis of accounts from the popular press and academic studies (see discussions about Kraviz in sections 4.3.3 and 5.2.1), field observations, and informal conversations about gender in the

world of EDM with female and male musicians, venue owners, and promoters. Nevertheless, the pressing issues regarding gender and EDM warrant further research.

Secondly, during the discussion about musicians' motivations (section 4.2) I suggested that one of the reasons why participants portrayed their activities as largely positive could be explained by the absence of inactive musicians. During fieldwork I encountered a number of musicians who had set aside their musical activities. Among the most common reasons for inactivity were frustrations with unrealised dreams of success and stardom, adaptation to new life priorities (including work, family, financial constraints), and an overall feeling described by one of them as, "things just didn't turn out the way I thought they would". This "drop-out" phenomenon has attracted attention from scholars within the field of music education studies (Costa-Giomi et al., 2005; Kruse, 2015, Lorenzo Socorro et al., 2016). More research about inactive musicians would deepen our knowledge of how grassroots musical activity can contribute to forming personal identities and people's lives outside the realm of musicianship, and help shift the attention from the negative associations of 'failure' to what philosopher Charles Pepin (2017) calls the "virtues of failure".[82]

Audio manipulation software is another topic that would benefit from deeper research, both from the perspective of PEDT, production studies (Paterson et al., 2016, p.7), and popular music (Prior, 2010). Considerable research about audio manipulation software has focused on product research, development, usability, and interface design (Jorda, 2017), and has largely focused on professional musicians and/or potential consumers of technology. As demonstrated in Chapter 5, grassroots musicians make extensive use of audio software, and participants revealed having different experiences when using licensed and unauthorised copies – mostly with regards to software stability and workflow, but there are also important moral and ethical questions involved, as well as issues about subcultural capital (examined in section 5.3). Topics for further research include: the political economy of software

[82] While not focusing on inactive musicians, Bennett's (2013) work about ageing music fans offered valuable insights about veteran musicians.

manufacturers; microanalysis of musicians' activities and experiences with licenced and unauthorised software, as well as a comparative study in relation to the use of dedicated hardware (including synthesizers, drum machines, sequencers); the use of smartphones and other portable music devices (including handheld audio recorders); and how the aforementioned elements affect the production process and the final cultural text. Such research would also answer the call from cultural production studies scholars for more research about tools (hardware and software) and their uses (Paterson et al., 2016, p.7).

Further work about policies for local cultural production would be valuable to deepen our understanding how to support under-the-radar musical activity, and, more importantly, to offer better conditions for grassroots cultural production. Literature about policies for 'creative economies' provides some background to the problems grassroots EDM musicians face, including the potential and problems offered by 'creative cities' initiatives (cultural quarters) as forces designed to revitalise post-industrial urban centres (Pratt, 2008; Evans, 2009; O'Connor, 2010). The backdrop to more research about cultural policies for grassroots musicians would include the increasing marketization of society and culture within the context of neoliberalism and post-2008 austerity policies. Writing about local music in Manchester and Sheffield, Brown et al. (2000) argue that policies for popular music have emphasised its economic benefits, and the answer is "not to turn back to a 'culture as an end in itself' approach (pure creativity) but to integrate the business of culture into a wider cultural policy – which in the end is a challenge to 'free market' economics" (p.450). Moreover, because of the complexities of the local-global reach of the music industries, the authors argue for a wider scope of policy beyond the 'local scene'. Policies for local music:

> would have to recognise the wider 'culture' of the city and how this relates to actual participation in the production, consumption and distribution of music. In which case local authorities would have to think much more profoundly about the relationship between the city, culture and globalisation than the 'quick fix' which the music industry seems to hold out (Brown et al., 2000, p.450).

The conclusions of a 2014 symposium about cultural value of amateur arts indicates that many of the aforementioned challenges for grassroots cultural production are still at work, and researchers argue that:

> the expression of cultural value by participants as a creative process and experience in itself requires new ways of configuring the debate about intrinsic values, beyond the assumptions currently made within cultural economics or cultural policy (Milling and McCabe, 2014, p.1)

Wide-ranging policies are needed to foster grassroots cultural production, because as Hesmondhalgh (2013b) reminds us, a number of general conditions are needed for local music to thrive, including: good quality and variety of music venues; legal and regulatory environment; urban infrastructure (transport, street lighting, safety); music education and public resources (libraries and museums); and national and international communication systems (pp.126-127) – all of which is "needed to make for thriving music-making and consumption, both professional and amateur, within particular localities" (p.125). Moreover, stronger policies and regulations of online platforms could benefit grassroots musicians. Napoli (2016) suggests that:

> in the end, the long tail has come to represent more of an ideal-type than a reality for the digital media marketplace. Its failure to fully take hold puts media policy-makers in the difficult position of evaluating whether the improvements that digital content curation and distribution have brought to the marketplace represent a sufficient realization of technological potential, or whether further intervention is necessary (p.351).

The wide range of activities required to foster good grassroots musicianship in popular music genres requires a comprehensive view informing policymaking and implementation, which would benefit from further research.

Throughout this thesis I have examined the practices and experiences of grassroots musicians as they learn, make, play, and circulate EDM. In my investigation I have highlighted the benefits and challenges musicians across the casual-professional spectrum have with digital technologies. In each chapter and section I pointed out how musicians' different experiences and practices are embedded in the broader context of cultural production. The common thread running through the thesis is the notion that while technological developments have facilitated (some) musicians' activities,

they are also associated (directly and indirectly) with changes that reinforce old challenges and/or create new obstacles – with musicians on the professional side of the spectrum facing more complex dilemmas and tougher decisions than their casual counterparts. The intersections between technology and grassroots musical activity are important, but as stated in the introduction, one of the key goals of this project is to move beyond a celebration of technology and overly optimistic views about its potential for users.

Studies about technological developments and musical activity support the notion that technology is a significant factor in musicians' lives, but it is certainly not the only one, and does not operate independently. Writing about the remarkable popularisation of digital music instruments in the late 1980s, the new forms of musical expression allowed, and the phenomenon of "technological consumption" by musicians, Théberge (1997) asks:

> what about the musician in this grandiose scenario? The reality for most popular musicians in the 1990s is that a successful career in the music business is as elusive as ever (if not more so). Advances in technology have not made access to recording industry executives any easier; indeed, it has made the former luxury of producing a competitive, professional-sounding demo tape a necessity (p.250).

Théberge's remarks reinforce the notion that technological developments facilitated some aspects of musicians' activities, namely enhancing the quality of audio production and increasing the creative potential of musicians through the affordances of newly available machines. Yet, professionals had to adapt to this context and greater access to instruments proved to have downsides. In a prescient paper about the democratisation of music production through technological development, Durant (1990) criticises the notion that greater access to tools are sufficient to realise the promise of democratisation of music production:

> if current changes in music stimulate primarily the purchase of equipment and development of basic production skills, it seems safe to say that no major democratisation of music will take place […] the real problems in the current phase of change are not those of access to making music – or even of who makes it – but of access to essential raw materials (sounds, melodic

> figures, etc) and to people who might listen to the wide range of musics that can now potentially get made. The inevitable processes of local sub-cultures into the more general public domain depend on the ways in which channels of distribution and transmission are organised and regulated. And since the creation and definition of audiences for new kinds of digital music depend significantly on aspects of social policy, rather than simply on technical capabilities of any particular machine, assessment of the cultural importance or implications of the new digital music technologies has to engage with definitions of musical 'democracy'. These are not only about cost, technical specification or required user-knowledge, but also more fundamental issues of music's social meanings, channels of circulation, and value (p.195).

As Durant suggests, technological developments have to be examined within the larger spheres of society, economy, and culture. He raises two major problems, access to raw materials, and audiences for these new musics and musicians. The first issue goes deeper than access to tools of production (software and hardware), and the examination of grassroots musicians' problems with regards to the application of copyright legislation via takedown notices (examined in Chapter 6) and the complications arising from their use of unauthorised software reveal that access to 'raw materials' may have increased, but its potential for legal, legitimate, and meaningful cultural production is still constrained. The second issue raised by Durant is particularly interesting with regards to the rise of online music circulation. New channels for music circulation such as peer-to-peer networks and UGC platforms have bypassed the control of traditional gatekeepers in the music industry, but as illustrated in Chapter 6, the organisation, regulation, copyright restrictions (for co-creative practices) and affordances of UGC platforms provide musicians with a new set of challenges, and are not ideal for musicians, specially to those who aspire to make a living from music. Moreover, musicians struggle for access to audiences in an environment of abundance of music and competing musicians, as illustrated by participants' promotional strategies and the exchange of unpaid work for exposure. Thus, the fundamental issue raised by Durant about "musical democracy" and "fundamental issues of music's social meanings, channels of circulation, and value" (1990, p.195) are still under debate. Hence, the need to continue to look at challenges faced by musicians, grassroots and professionals alike.

Critics of technological determinism in media studies (Winston, 1998; Mosco, 2005; Lax, 2009) have strongly argued against overemphasising technology as the major force of change because “certainly, technology *is* conditioned and constrained by the various social influences upon its development, but it also does have effects which depend significantly upon its technical capabilities (and limitations)” (Lax, 2009, p.3 original emphasis). In this investigation of grassroots cultural production I have aimed to follow this nuanced approach, and have argued that while many aspects of grassroots musical activity have been facilitated by technological development, its role in driving change should not be overemphasised and must be analysed using a micro-analysis of musicians’ practices alongside a macro view of the institutions, structures, and overall production conditions.

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List of Abbreviations

AIFF	Audio Interchange File Format
ANT	Actor-network Theory
ASCII	American Standard Code for Information Interchange
BBS	Bulletin Board System
BPM	Beats Per Minute
CC	Creative Commons
CD	Compact Disk
CE	Consumer Electronics
CMIS	Critical Media Industry Studies
DAW	Digital Audio Workstation
DIY	Do-it-yourself
DJ	Disc Jockey
DSP	Digital Signal Processing
EDM	Electronic Dance Music
HE	Higher Education
IT	Information Technology
LSD	Lysergic acid diethylamide
MDMA	Methylenedioxymethamphetamine
MIDI	Musical Instrument Digital Interface
MP3	Moving Picture Experts Group 1 Audio Layer III

NI	Native Instruments
PC	Personal Computer
PEDT	Political Economy of Digital Technologies
PMS	Popular Music Studies
RBMA	Red Bull Music Academy
SD (Card)	Secure Digital Card
SDT	Self-Determination Theory
STS	Science and Technology Studies
UGC	User-generated Content
USB	Universal Serial Bus
VST	Virtual Studio Technology
WAV	Waveform Audio File

Appendix 1 Information Sheet

UNIVERSITY OF LEEDS

DJs, Producers, and Digital Media:

Opportunities and Challenges for Music-Makers

You are **invited** to take part in a **research project** about **music and digital technology**. This document provides more details about the research, and information on how you can help.

Who can take part: DJs and music producers of electronic music who **use** a **computer to make music** (post- production, arrangement, remixing or mastering), and **use the web** to **distribute or promote** (social media, streaming, or any other publishing platforms).

Objective of the project: to investigate **how** DJs and producers **play** and/or **make music using digital technology**, more specifically **digital media**. I want to **understand** how these **technologies affect** your **musical life**, *regardless of the level of your abilities, skills and knowledge*. So do not be put off if you think you do not know enough, or maybe too much, about music.

How you can participate: I want to **interview** you about your **musical activities**. You may also contribute with access to music **material posted online** in social networks; such as artist webpage, Soundcloud profile, and other related material.

What I want to know: details about your **background** and **experiences in music**, **skills** and **abilities**, as well as **how you use digital technology**. Expect questions such as:

- *What motivates you to write music?*
- *How you make and distribute music off and online?*
- *What kind of problems you have to make or play music?*
- *How do you use social media as part of your musical activities?*
- How do you manage your artist identity and online activity?

What if you change your mind: you have the **right to withdraw** any information provided without giving any reason and with no negative consequences for up to six months after participating.

Benefits and advantages: you will be **contributing** to our **knowledge** about music, technology and the effects of digital media in the way music is made and distributed. Expect to have useful **insights** and **ideas** about your music and how you make it. You can also choose to have your identity published in the research results. Oh, and did I mention that you will be **helping** us **understand what is happening** to **music and musicians** in the digital age and how it **affects** other **people like you**?

Who am I: I am a PhD student and researcher at the *School of Media and Communication*, at the *University of Leeds*. Contact me for more information using the information below.

Thank you for your attention,

Andreas Rauh Ortega

csaro@leeds.ac.uk

+ 074 62 938 716

School of Media and Communication

Clothworker's Building North University of Leeds,

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Appendix 2 Consent Form

Consent Form

UNIVERSITY OF LEEDS

Researcher: Andreas Rauh Ortega +07462 938 716 csaro@leeds.ac.uk

Please write your initials to the right of the statement you *agree* with

1	I have read and understand the Participation Information Statement explaining the research. I also had the opportunity to ask questions about the project.	
2	I understand that my participation is voluntary and that I am *free to withdraw up to six months* after agreeing to take part of it, without giving any reason and without there being any negative consequences. I am also in my right to not answer any question(s) should I chose to.	
3	I want to keep my responses, material published by myself, and identity ***anonymous*** in this research. I understand that my name will not be linked to the research materials and I will not be identifiable in the resulting publications.	
4	I want to keep my responses, material published by myself, and identity ***public*** in this research. I understand that my name will be linked to the research materials and I will be identifiable in the resulting publications.	
5	I agree for the data collected from me, or published on the web by myself, to be *used in future research.*	
6	I agree to take part in the project and will inform the researcher about any change to my contact details.	

______________________	______________	______________
Name	Date	Signature
Andreas Rauh Ortega	______________	______________
Reseacher	Date	Signature

To be signed and dated in presence of the participant

Appendix 3 Interview Questions

Interview Questions

Background

How did you start (playing/writing) music/EDM?

What is your favourite band/artist/genre?

On making music (and work places):

How do you make music? (instruments/hardware/software/practices)

Do you buy music/software for making music? Why? Which one?

Do you prefer to play with CDs or vinyl records?

Do you socialise with others to make/play music? Lonely?

How did you learn to make/play EDM?

What makes you remix a track? How do you chose a track?

Tell me about your experiences when you remix other people's tracks? What about when they remix your track?

Have you participated in a remix contest? How was it?/Why not?

How would making/playing EDM be different without online platforms?

About community / Local Scenes

Would you say there is a [city name] music scene? Why?

How would you describe it? How did you get involved?

What is the role of digital media (social media, UGC) in the local scene?

How do you find/discover new music?

Digital Media / Online Platforms

What online platforms (social network sites, UGC) do you use for music?Why and how do you use them?

What are your online identities? Are they personal and/or public? How do they blend (or not)? How do you manage them?

What kind of content you upload to your online profiles?

How do you upload and circulate content online?

What are the things you like/don’t like about the online platforms you use?

Thinking about the social aspects of the online platforms you use, how do you get in touch with other people? And how do you keep in touch with them?

Gender

Do you know about women/other women who make EDM? Have you worked with them?

Any experiences about making or listening to music where you think that the fact they/you were/are female played a role?

With regards to gender Do you think digital media helps them/you? How? Why?

Career and Work

How do you pay your bills?

How do you manage your day job with your musical life?

Have you released music commercially? Physical or Digital? Why?

Have you used CC licenses with your music? Why/Why not?

How do you make money from music? How does social media helps you?

Motivations and Final Questions

Why do you make/play music?

What are the things you enjoy the most about making music? And what is the worst?

If you could change anything in your musical life what would it be? Why?

How do you see yourself as a musician the next year? What about 5? 10?

Is there something else you would like to say?

Appendix 4
SoundCloud Takedown Notice

Andreas Rauh [redacted]

Your upload Dj Rauh - Beatles - Tomorrow Never Knows (Locomotion Blend) has been removed from your profile

SoundCloud <NO-REPLY@soundcloudmail.com> Tue, Jul 26, 2016 at 7:05 PM
Reply-To: SoundCloud <NO-REPLY@soundcloudmail.com>
To: [redacted]

Hi Andreas Rauh,

We've received a report directly from **Universal Music Group** that your track "Dj Rauh - Beatles - Tomorrow Never Knows (Locomotion Blend)" contains "Tomorrow Never Knows" by The Beatles. As a result, your track has been removed from your profile for the time being.

Wait SoundCloud, I think I have the rights to this!

If you think we've made a mistake, you can tell us about it by following the link below and filing a dispute. You can file a dispute if you think the person who reported your track got it wrong - for example, because you are the copyright owner or have permission from the copyright owner(s) to post this track to SoundCloud.

If this applies to you, tell us about it here: https://copyright.soundcloud.com/dispute/soundcloud:disputes:19768835

OK, what happens next?

If you file a dispute and show us that you have all rights necessary to post this track, we will reinstate your track, no problem.

Please bear in mind, in all other cases for any track reported for copyright infringement under our three-strikes policy, you will receive a "strike" against your account. If you receive three of these strikes, your SoundCloud account will be terminated in accordance with our Terms of Use.

Copyright infringement is a serious matter, and we expect all SoundCloud users to respect other people's copyright. To learn more about copyright, please visit our copyright information page and see our Help Center articles.

Thank you,

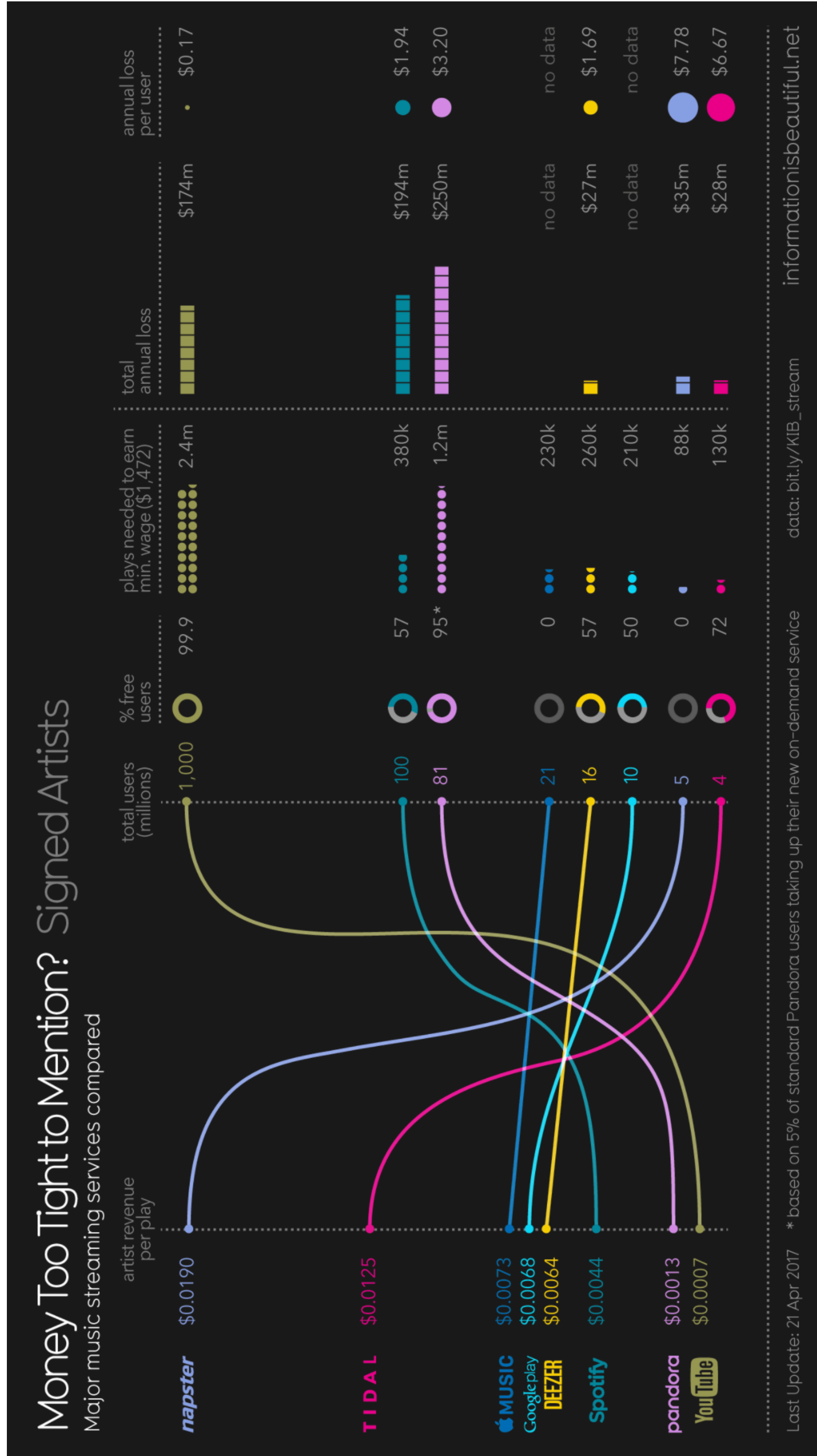
The SoundCloud Copyright Team

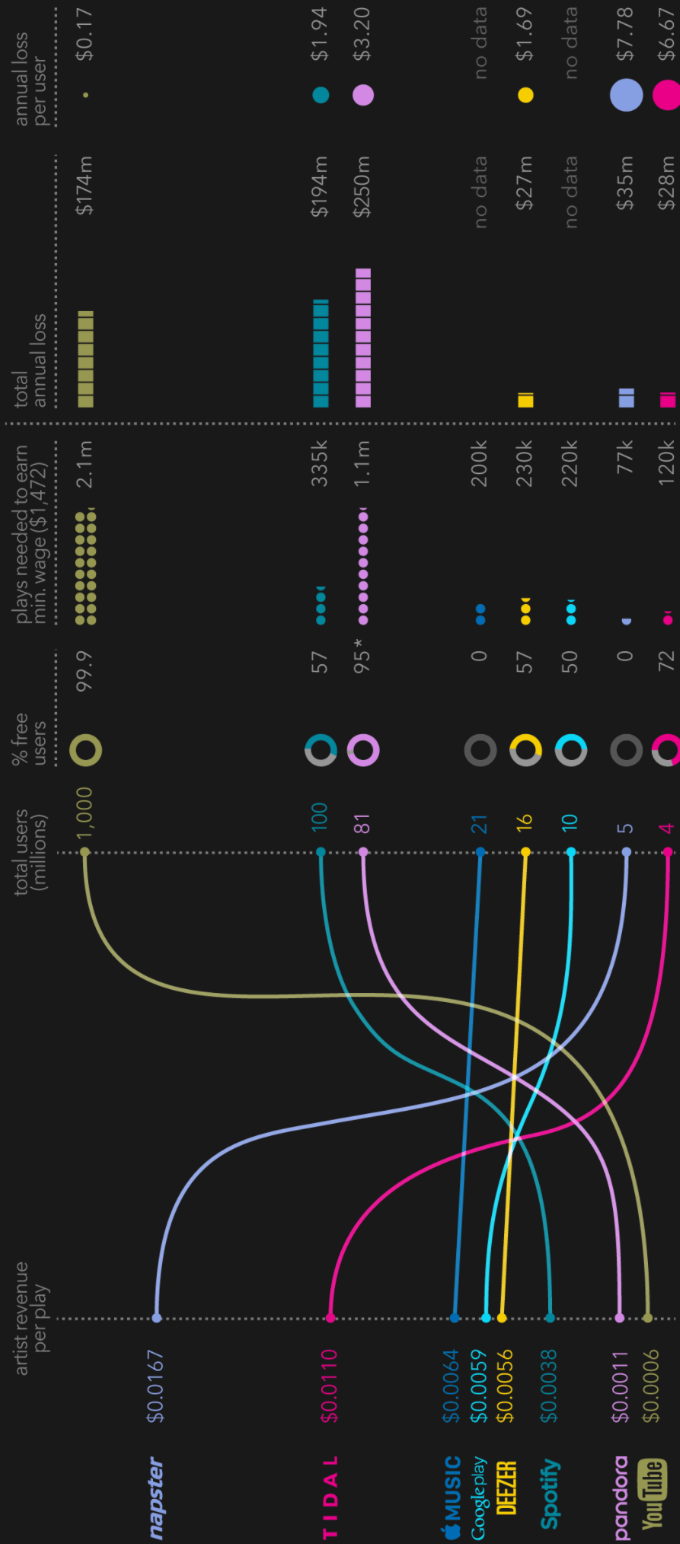
© 2007 - 2016 SoundCloud Ltd. All rights reserved
Manage Notifications | Support | Terms of Use | Community Guidelines | Imprint | Privacy Policy

SoundCloud Limited Rheinsberger Str. 76/77 10115 Berlin Germany

Appendix 5

What Streaming Music Services Pay





Money Too Tight to Mention? Unsigned Artists
Major music streaming services compared
artist revenue per play
total users (millions)
% free users
plays needed to earn min. wage ($1,472)
total annual loss
annual loss per user
napster $0.0167
TIDAL $0.0110
MUSIC $0.0064
Google play $0.0059
DEEZER $0.0056
Spotify $0.0038
pandora $0.0011
YouTube $0.0006
1,000 99.9 2.1m $174m $0.17
100 57 335k $194m $1.94
81 95* 1.1m $250m $3.20
21 0 200k no data no data
16 57 230k $27m $1.69
10 50 220k no data no data
5 0 77k $35m $7.78
4 72 120k $28m $6.67
Last Update: 21 Apr 2017
* based on 5% of standard Pandora users taking up their new on-demand service
data: bit.ly/KIB_stream
informationisbeautiful.net

Appendix 6

List of Participants in Alphabetical Order

Name	*Gender*	*Age**	*Nationality*
Al Bradley	Male	Early-40s	English
Alan 'Qualiass' Roposa	Male	Mid-30s	Slovenian
Alex Brown	Male	Mid-20s	English
Annie Errez	Female	Mid-30s	English
Bernardo 'Bera'	Male	Late-30s	Brazilian
Borja 'Borka'	Male	Mid-30s	Slovenian
Danny James	Male	Late-teens	English
Frederico Torres	Male	Early-30s	Brazilian
Gabrielle Cooke	Female	Early-20s	English
J. S. 'Stenos'	Male	Early-30s	Greek
Janus 'Yanoosh' Luznar	Male	Mid-30s	Slovenian
Kristjan Kroupa	Male	Mid-20s	Slovenian
Matej 'Kleemar' Končan	Male	Mid-30s	Slovenian
Matjaz 'Aneuria' Zivko	Male	Mid-30s	Slovenian

Mitja Cerkvenik	Male	Early-30s	Slovenian
Otis Farnhill	Male	Late-teens	English
Pete Johnston	Male	Early-30s	English
Richard Fletcher	Male	Late-20s	English
Tine Vrabič	Male	Late-20s	Slovenian
Tom 'Leemajik' Leemajic	Male	Late-20s	Slovenian
Vahakn Matossian	Male	Late-20s	English
Vid Vai	Male	Mid-20s	Slovenian
Will D'Cruze	Male	Early-40s	English
Xavier Bonfill	Male	Late-20s	Spanish

* At the time of interview