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# **Digital Media, Live Interfaces and Inclusion Ethnographic Perspectives**

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## **Abstract**

This paper discusses the potential of digital media and live interfaces in musical composition and performance for subverting exclusionary structures towards inclusion. Coming from backgrounds in electronic music and ethnography, the authors present two case studies that investigate music making practices with live interfaces. These case studies explore the relation between musical experimentation and the use of digital media in catalysing new forms of practice that move beyond restrictive categorisations and limiting boundaries constructed as a result of historical, social, and political processes. While the cases are differentiated in their approach, they converge in their emphasis on the inclusive potential of the digital media.

## **Keywords**

Inclusion

Musicking

Electronic music

Experimental music

Ethnography

## Introduction

The proliferation of widely-accessible, increasingly mobile, and low-cost interfaces for musical/sonic practices has posed challenges to established norms and power structure through resetting the aesthetic boundaries for creative practice and de-centralising the means of experimentation for producers and prosumers. (Bowers, 2002; Katz, 2004; Théberge, 2004; Born, 2005; Waters, 2007; Prior, 2008, Butler, 2014; Taylor, 2014; Samuels, 2015, 2016). While acknowledging the asymmetrical distribution of such effects across different cultures and communities, in this paper we present two case studies from each of our interdisciplinary work with music/sound and ethnography. Coming from distinct backgrounds in the field of ethnographically-informed research in relation to music/sound and digital technologies, our concerns intersect on the issues surrounding inclusion and relationships of power.

In this paper, Samuels discusses his ethnography of the The Drake Music Project Northern Ireland (DMNI), a charity that works with people with disabilities to provide access to music composition and performance through the use of digital music technology interfaces and computers. Through introducing his interactions with two of his research participants, he argues that “inclusive music”<sup>1</sup> emerges through communication, creativity and human relationships, in combination with the affordances of digital music technology interfaces, in a network of dynamic interrelations.

Drawing on his practice-based study of an experimental music “scene” in Iran, Bastani offers a broader socio-political perspective. He argues that digital technology and new media platforms have facilitated the negotiation of new boundaries for musicking in Iranian society; an area strictly controlled by the political system. He draws on his involvement with the “scene” at hand as both an ethnographer and an artistic collaborator - a ‘participant-experiencer’ (Walstorm, 2004).

<sup>1</sup> We use the term “inclusive music” in this paper to denote a varied and growing field of organisations and individuals working with music technology for providing access to people with disabilities. Rather than “disabled people”, in this paper we use the term “people with dis-

## The Drake Music Project Northern Ireland and “Inclusive Music”

Samuels conducted an ethnographic study of The Drake Music Project Northern Ireland (DMNI) from 2014-2015. DMNI is a registered charity, which is part of a UK-wide organisation<sup>2</sup> established by Adele Drake in 1988. The vision of the organisation is divided into four points: i) to deliver a unique approach to independent music making for musicians with disabilities of all ages; ii) using state of the art musical instruments and adapted interfaces; iii) delivered by professional associate musicians with and without disabilities; iv) employing the best of evidence-based practices.

Today, DMNI has separated into three independently operating charity organisations. The Drake organisations are part of a wider field of disability arts and community music activity that has been called “inclusive music” (coined by Tim Anderson<sup>3</sup>).

### 1. Technical and Human factors

Technological assistance and solutions to disabling barriers are at the core of DMNI ethos and activities. DMNI promotional literature states that the organisation uses “adapted computer interfacing technology matched to the musician’s physical and cognitive ability”, and that through this “these musicians are enabled to express their creativity as equal and valued members of the community”.<sup>4</sup>

DMNI CEO Michelle McCormack shared with Samuels what she feels are important qualities in her access music tutors:

Somebody who can actually go in and hold people’s attention and in our work as well, somebody who’ll go in and take that few minutes longer than they want to take when it comes to the coffee break, to listen to that person who has very slow speech, and hear just that wee bit they want to tell on how that impacted on them, or take that minute to say

abilities” as this is the language The Drake Music Project Northern Ireland themselves use.

<sup>2</sup> Drake Music (England), The Drake Music Project Scotland and The Drake Music Project Northern Ireland (DMNI). Each offshoot from the original “Drake” organisa-

“did that actually go the way you wanted it to go?” rather than walking away and thinking god that was great, that switch worked and I’m a happy puppy. (Samuels, 2016: 31)

She emphasises rather than technical skills, that communication and an inclusive attitude are key. This is because they can lead to actions that give people with disabilities in DMNI workshops the space as well as at times the encouragement to be creative, compose, and perform with music technology. As Michelle’s comment indicate she was hesitant to place too much emphasis on the role of the affordances of technology in inclusive music making. Similarly, Samuels (2016) found throughout his ethnography that for the workshop participants, who have a broad spectrum of abilities, it is through the dynamic interrelations between all the musicians and the music technology interfaces in the workshop environment that inclusive musicking emerges. Next we will turn to an example of this kind of musical emergence drawn from Samuels (2016) ethnographic study.

## 2.Mapping the Blues

One of DMNI’s longest standing musicians, Marylouise McCord (Marylou), has been composing and performing music in various DMNI ensembles for over 20 years. She is also active in Belfast’s community arts scene taking part in inclusive dance productions as well as painting and art workshops. To explain the nature of her disability, Marylou has cerebral palsy and is a wheelchair user with limited use of her limbs and hands. Her self-expression by speech takes time, although she can engage in spoken conversation if given sufficient time. She often communicates through her assistive speaking device and Samuels also communicated with her via email. Samuels found that she has a superb sense of humour and brings a lot of joy and laughter to the workshops she is involved in. Marylou commented on her experience with DMNI:

I’ve been a Drake Music student since 1992 when the equipment was out-dated compared to the fantastic instruments we have now. I have always had a great interest in music but because of my disabilities and my fellow Drake Student’s disabilities before we came to drake it was not possible to do music, but because of drake music the possibilities are endless, I love it. (Samuels, 2016: 37)

Over the many years she has been composing and performing with music technology interfaces in DMNI workshops she has gained an intuitive and in-depth knowledge of MIDI controllers, types of sensors, and accessible devices. Marylou is often a driving force in the creative direction of DMNI workshops. One example of her ideas for creative input into the ensemble she is part of took place when Samuels was conducting his fieldwork with DMNI.

Marylou’s father, Davy, had recorded two guitar tracks into the ensemble project; the first track consisted of a chord sequence that added to the rhythm section of the overall piece; the second track recording was improvised blues licks, adding a soulful embellishment. Danny, the lead access music tutor, edited the recording into short samples of individual blues licks in the DAW software that was being used as the hub of the project. His idea was to map a guitar lick sample to each of the sixteen pads on the Akai MPD18<sup>5</sup>. Marylou tested out the guitar-mapped pads. Through a short discussion, everyone agreed that they fitted well and that we should include this in the overall piece. The MPD18 has a full-level velocity function so each hit plays at full volume once triggered, overriding the touch sensitivity function of the pads. Because the tempo of recording was “snapped” to the global tempo of the project, Marylou triggering them live also worked in exact sync with the rest of the project.

tion has its own individual focus on projects and operations. The Drake organisations .

3 <http://www.inclusivemusic.org.uk/>

4 Extracted from <http://www.drakemusicni.com/about-us>

5 A MIDI-over-USB pad controller produced by Akai: <http://www.akaipro.com/product/mpd18>

After Marylou had experimented and decided how she would trigger the licks, Davy picked up his guitar and started playing along with her. Intuitively, Marylou responded to the licks that Davy was playing on his guitar. They started to play together in call and response, father playing guitar and daughter interacting back by triggering the pre-recorded samples of her father playing the guitar. Davy would mimic and embellish on the licks that Marylou would trigger. A communicative musical interaction was achieved. There was a moment in the workshop when everyone fell still and silent, engrossed in watching Marylou and her father improvising together. Through some planned mapping and low-level (consumer) interaction design with the MPD18 interface, the duo was able to improvise together.

### 3. Redistributing Musical Processes

Often in DMNI workshops it is the readily available, simple to use but generic consumer music technology interfaces that are utilised, such as the Akai MPD18. This is in contrast to the growing availability of open-source computer and sensor technologies, which are highly customisable to a user's specific requirements, and thus afford great potential for unique and bespoke designs catering to an individual's specific needs (Jewell and Atkin 2013). Despite these kinds of devices' high level of customisability, they require specialist expertise to build, operate, and maintain. Thus, although open-source technology is increasingly low-cost and accessible, they are not in fact "open" to many users with disabilities (Samuels 2015).

Speed and directness of connectivity and ease of configuring and mapping is prioritised in DMNI workshop settings over more advanced and bespoke device set-ups. This is because workshops last only 1.5 hours, as well as due to facilitators lacking the required expertise in DIY digital musical instrument design.

Delegating musical processes to the computer is a common solution to overcome DMNI musician's physical barriers to music making with traditional musical instruments. This means performance processes can be broken down into parts and redistributed between several performers (as opposed to a solo performer), or a single mode of interaction could control several modes of musical manipulation. Anderson and Hearn (1994) argue that this use of digital music technology is especially relevant to disabled musicians, who may find performing pre-constructed musical material, or the control of multiple parameters in one mode of interaction more suitable to their specific requirements.

### 4. Human-Machine Configurations

In the context of DMNI workshops human-machine configurations are formed of performers, music technology interfaces, computers, musical instruments, assistive technology, the performance space itself and people's spatial position in it, the volume of the music being played, the noise from the world outside the studio, the attitudes of participants, group politics, the rules and regulations set by the management company maintaining the building the studio is a part of, and so on. A material-semiotic approach to understanding how the musicking dynamically emerges through these kinds of human-machine configurations provides an alternative to either viewing a person's ability or disability in relation to music making as a physical attribute residing within an individual (medical model of disability) or removing the focus from the body entirely (social model).

Rather, a perspective of performative and distributed agency between human and non-human actors acknowledges the multiplicity of the experiences of being a person with disabilities. It does so by simultaneously addressing the interactions between the impaired body, disabling social and institutional barriers, and inaccessible technological devices and environments (Galis 2011). As Galis (*ibid*, 835) writes:

The important point here is that disability does not reside solely in the body or in society. Disability is an effect that emerges when impaired bodies interact with disabling infrastructures/culture.

From this theoretical standpoint, concepts often assumed to be stable and static attributes belonging to an individual or a piece of technology, such as “disability”, “enabling”, “exclusionary” can be viewed as relational, performative and enacted. Thus, Samuels (2016) argues that inclusion in music making at DMNI is able to be enacted through the dynamic interrelationships between people, things and their environment. At the same time, ability is performed and exclusionary social attitudes and assumptions are performatively challenged and deconstructed in DMNI workshops.

### **Digital interfaces and experimental music in the Iranian State**

In the last 10 years, a new wave of experimental digital arts and music practices has emerged from Iran. A small “scene” is now recognised beyond the Iranian geopolitical borders and is represented in *public* venues across the country. Public presentation is a of crucial significance, as a large proportion of the music produced never finds the opportunity to be shown due to the state’s mechanisms of monitoring and filtering. Without the Ministry of Culture’s permit system approval, any public presentation or dissemination of a cultural product is banned by law.

However, the permitted and prohibited areas of practice have changed increasingly in favour of including and tolerating a broader set of aesthetics. Viewed in the context of technological-social-political transformations, this has been made possible partly as a result of cultural producers’ consistent and uncompromising practice and partly due to the advancements in the area of digital and new media technologies. Alireza Farhang, a cofounder of the “association

for Iranian composers of contemporary music”, and the author of “Electronic Music in Iran” (2009), observes:

The new generation was much more aware of what was happening in the world and, therefore, things developed quite rapidly afterwards. Composers were re-introduced to music technologies and electronic music, this time thanks to the internet and advancements in music and audio-related software technologies. This developed gradually until around 2007-9 when it came to fruition and became visible on the surface of the society. (Alizera Farhang, Interview via Skype, August 2017)

Likewise, as noted by Farhang, digital technology and the internet have been instrumental in enabling a younger generation of musicians to explore new expressive possibilities as they negotiate a space for their creative practice in society, pushing back on the inherited ideological and political restrictions in a constructively dynamic dialogue with the system.

### **1.The hot zone**

Systemic control in relation to art and music in Iran stems from various historical, socio-political and cultural contexts that have been in part related to the religious views held amongst Muslim theorists, scholars, and rulers. However, the latest setting against which such a mechanism was re-vitalised was the 1979 revolution and the subsequent war with Iraq (1980-88).

The revolution, particularly, was the scene of complex plays of identity and has been partly regarded as the rejection of Western cultural hegemony. As such, it led to a decade of partially self-imposed isolation, most notably from the countries of Western Europe, North America and their allies, a period in which the settling regime anxiously attempted to disentangle itself from the web of neo-colonial influences, interventions and dependency.

Having been understood among the revolutionary forces as a crucial facilitator of the said hegemony, music (particularly pop music) went under substantial attack. Comprehensive bans and controlling measures were applied to a range of musical activities from teaching to performing and even selling musical instruments. Such policies forced musical practice further underground and into the safety of people's most private spaces for almost two decades.

## **2. Political shift, digital technologies, and new media**

The above dynamic started to shift significantly, in part as a result of Mohammad Khatami's (president 1997-2005) relatively more tolerant cultural policies, but perhaps more importantly due to the developments in the areas of digital technologies and new media. Since its "inception in 1993" (Rahimi 2003) in Iran, the internet has been particularly instrumental in providing alternatives outside the state's boundaries of control. Khatami's government policies regarding economic integration also offered a context for the technology providers to broaden their reach inside the country.

While affording new means for sonic experimentation, digital interfaces such as laptops, computer programming environments, software synths, and midi controllers also helped practitioners disentangle musical presentation significantly from the forms previously known to and frowned upon by the state. However, it took these new experimentations a couple of years to mature. It was only around 2007 that the earliest indications of a growing experimental electronic music and digital arts practice surfaced within the society.

Although under the relatively more tolerant policies of Khatami various forms of music found spaces to manifest, the deeper paranoia about pop music remained almost intact among the more conservative forces who have traditionally had substantial control over the security forces. As such, the public presentation of pop music

(mostly in the form of Rock and Hip-hop concerts) caused several clashes. As a result, gigs were raided and cancelled by the security forces, performers were pushed to abandon their activities, their instruments were seized, and arrests took place. Such events inevitably affected the musical scene. Arash Molla, a composer based in Tehran notes:

A lot of people who recorded stuff in small studios across Tehran, started learning how to work with digital interfaces and software themselves to offset the difficulties of gathering people together, rehearsing, recording and developing a collective vision in an environment so hostile to music. Via digital interfaces they could write everybody else's parts in the band and easily get to the finished demos. At least it made production much easier. (Arash Molla, Interview vis Skype, August 2017)

Hence, not only for aesthetic reasons and an exploratory approach towards finding new expressive territories, but also due to the practical issues of sustaining a band activity with very little future prospects, more and more musicians started experimenting individually with digital interfaces, particularly software.

## **3. Cosmopolitan musical affinities, digitally produced/performed music, and aesthetics**

A new musical scene started taking shape. Although this time the practices were mainly based on the efforts of the individuals, they quite rapidly connected. The connection was facilitated by the means of new media and digital technologies. Social media platforms, particularly Soundcloud and Facebook, and musical forums provided contexts for these individual practices to be shared online and find peers. Shahin Entezami (aka Togh), an electronic producer who started his practice under hip-hop influences but re-oriented towards ambient music puts it this way:

I got to know these people who are now my friends and colleagues from social media. [...] The relationship with our audience is also made possible via these networks. We promote our music, share it, send it to labels and our peers across the world. We also sell tickets on social media. We wouldn't even have an audience inside the country if it wasn't for the possibilities of social networking and the internet. (Shahin Entezami, Interview via Skype, April 2017)

Thus, the rather non-mainstream musical practices that were rendered hopeless and pushed underground by the state's oppressive behaviour, became animated once more. This time the link initiated from the safety of the individual's bedrooms, via their personal computers. Digital and new media technologies also afforded musicians/producers in Iran contexts for learning skills, sharing materials, connecting with peers, and imagining alternatives for musicking beyond the boundaries of the state control and social dogmas. This has been a major transformation in the Iranian art and music scene, which has allowed the artists and enthusiasts to move in synchronization with the developments in their preferred areas of practice and to contribute to their progress.

In this context, an understanding of Mark Slobin's notion of "affinity interculture", Martin Stokes concept of "cosmopolitanism" as an analytical tool within ethnomusicology, and Thomas Turino's "cosmopolitan subjectivities" are helpful in the theorization of how shared musical preferences travel in our time across the world and connect. All three concepts are significant as they help "restore the human agencies and creativities to the scene of analysis allowing us to think of music as a process in the making of "worlds", rather than a passive reaction to national or global "systems"" (Stokes 2007, 6). Tsioulakis (2011, 177), drawing on Slobin's "affinity interculture", proposes that an understanding of the social imaginary (Castoriadis 1987, Gaonkar 2002, Taylor 2002) is most relevant in the description of music

networks that incorporate global/cosmopolitan aesthetics and ideologies.

Siavash Amini, a composer and producer based in Tehran, stresses the significance of imagination in the ways his musical practice and aesthetic preferences, mediated by the internet and communicated via digital interfaces, led to the emergence of a successful and enduring experimental electronic music festival in Tehran (2015-present), i.e. the SET experimental arts events. He says:

I believe our scene is fundamentally related to imagination and dream: the way we have imagined new worlds, where relations are different from what we experience as social reality. This [SET] is our city [referring to Calvino's *Invisible Cities*] and we have been building it consciously or unconsciously to get to the dream. The dream of living a different reality.

## Conclusion

In this paper, both authors presented case studies in which the involvement of live interfaces and digital media for music making help facilitate modes of practice that challenge and subvert traditional and accepted modes of production, consumption and distribution. The significance of this is not only material and technological. It encompasses wider negotiations of social and political agencies on the macro-level of societies, as well as in the attitudes and actions of individuals.

While Bastani's study takes a broader socio-political stance over the use of digital technologies and new media platforms in mediating the contested space of musical performance in the Iranian society, Samuels' takes the perspective of ethnographic inquiry into modes of localised performance utilised to uncover the relational effects of digitally-mediated musicking in a musical community of musicians with disabilities.



In the case of DMNI the digital medium is exploited to assist and encourage the flow of agency in such a way that reconfigures performer's capacities for action, the effect of which performatively challenges exclusionary social attitudes and assumptions regarding people with disabilities. This is because DMNI ensembles give the participants the time and space, as well as the personal encouragement and technological tools necessary to enact performances of their abilities.

In a similar vein, the practices involving the use of digital technologies and new media in Iran have enabled a new generation of musicians to significantly challenge conventional boundaries of musical activities enforced by the state. Since their earliest appearances in the public domain in 2007, these relatively novel and continuously evolving forms of musicking facilitated an ongoing negotiation between musical practice, systemic control, and social dogmas by radically transforming conventional boundaries of musical aesthetics within the society.

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As such, although different in approach, both cases emphasise the transformative potential within live interfaces and digital media in that they can provide a platform for musicking across barriers that are constructed through social and political categories and labelling. These transformations are enacted in material, aesthetic, and political planes, and can lead to effects that are both inclusive and empowering.

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