

Online Music Knowledge

The Case of the 'Non-Musician'

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Amidst specialist of various musical cultures, I will be talking about music very broadly, something that is a specialization in itself within the field of information studies, and perhaps something not specialized enough in ethnomusicology. :) In a nutshell, I study the way people use online resources to understand how music-related information is accessed in order to make it better. This presentation is based the early findings in my master's thesis. The questions I am exploring strive to understand how music knowledge transmission is being mediated in the online context. This paper will begin with some background on the research approach and rationale, followed by a brief overview of the cases, and some of the findings that have emerged regarding music information seeking behaviour.

“...no musical style has ‘its own terms’:
its terms are the terms of its society and
culture, and of the bodies of the human
beings who listen to it and create and
perform it.” ~ John Blacking

What do we mean when we say ‘music’?

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When the topic of my research around “Online Music Knowledge” comes up in conversation amongst my colleagues, it elicits a wide variety of responses. I become engaged in conversations about online tools that allow people to compose music with no prior knowledge of composition, online communities where composers are sharing their music with each other, hacker-musicians that build their own electronic instruments and get together and jam once in a while, and inevitably, *Shazam*, the iPhone app that will name and identify a piece of music that’s played into the microphone.

“Art works have a materiality. Music has nothing but mediations to show: instruments, musicians, scores, stages, records.” ~ Antoine Hennion

“..music defines itself as what counts by virtue of its differentiation from that which does not count... it is also made to count by virtue of its approved and established mode of study. ~ Lucy Green

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The fact that the research topic elicits such immediate and yet diverse response is telling in a few ways: firstly, everyone *knows* about music in some way and can articulate their take on it one way or another, even if it is total apathy and disinterest. Secondly, whatever it is that one knows or understand about music, their immediate response reflects a particular understand that is ideological in its nature, Part of that immediacy arises out of the impression that they are talking about an *inherent* or universal quality about music that should be as obvious to others as it is to them. In reality, each response reflects a *delineated* aspect or perspective of the many ways that one can engage with music. **That understanding is mediated by enculturation, personal experiences, institutions, or popular media, just to name a few.**

The concept of *inherent* and *delineated* meanings within music is drawn from Lucy Green’s 1988 book, “Music on Deaf Ears”

“...individuals who have not been exposed to any regular music instruction over a significant period of time whereby a western European paradigm of music education was adopted, via either formal lessons with a teacher or interactions with a family or community member on a casual basis.”

Who exactly are “non-musicians”?

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The title ‘Non-musician’ is used reflexively in this research. For some, the title of musicians carry with it the implications that musical ability is not common to every individual, and that it is a social status that is earned in some way. It is invariably tied to a shared ideology about the value and place of music in a society, an ideology which is perpetuated by the very same institutions whose existence relies on those values remaining as they are. These are ideologies about what constitutes as ‘good’ music, how does one ‘properly’ learn music, what is ‘worth’ listening to, and the class implications of an individual’s musical inclinations. Such ideologies are perpetuated by the way music libraries are organized, in part because they exist to support some of the very same institutions. This thesis selected Non-musicians as case studies as a way to draw attention to the way music knowledge is acquired outside of an institutional setting, a process that is going through rapid transformation when mediated by a digital and online environment.

Research Approach

Symbolic Interactionism (Blumer, 1969)

- People, individually and collectively, are prepared to act on the basis of the meanings of the objects in their world.
- The association of people is a process in which they are making and interpreting each other's indications.
- Social acts, whether individual or collective, are constructed through a process in which the actors note, interpret, and assess the situations confronting them.
- The complex interlinkages that comprise institutions, division of labor, and network of interdependency are moving and not static affairs.

Continued

Symbolic interactionism informs the overall research methodology, a framework for conducting qualitative research that allows data and insight to emerge, instead of going into the field with hypotheses for testing. Four tenets lay the foundation to this approach according to Blumer:

People, individually and collectively, are prepared to act on the basis of the meanings of the objects in their world.

The association of people is a process in which they are making and interpreting each other's indications.

Social acts, whether individual or collective, are constructed through a process in which the actors note, interpret, and assess the situations confronting them.

The complex interlinkages that comprise institutions, division of labor, and network of interdependency are moving and not static affairs.

As such, my working definition of "non-musician" was not shared with potential research participants during the recruitment process. It was deliberately left open for interpretation in order to allow the meaning to emerge as part of the case studies, rather than assuming the presumptions inherent in my definition did not require revision.

While the scope of the research was set out to study specifically online behaviour of individuals seeking out music knowledge, what became clear was that the "online environment" is just a new context within which we construct our social worlds. Just as music is not learned by *only* practicing, or *only* through coaching, or *only* by fooling around and experimenting, no one learns music simply by accessing available online resources.

The Relentless
The Musical Silo
The Enthusiast
The 'Non-Musician'
The Outlier

CASE STUDIES

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The five case studies were developed with an eye for *all* the ways in which an individual seeks out music knowledge, and the role that online resources play as part of their music learning process. Each of the five cases hold their own in terms of their ability to provide insights into particular musical worlds and their modes of music information seeking behaviour. However, the focus of this research is on a broad understanding of the way knowledge is sought within the domain of music, and to articulate qualities of the individual or users pursuing such information, in order to develop better information-based services with users like the self-directed learner in mind.

Case #1: The Relentless, age 33

“I was branching out in my musical friendships as well, you know, musicians would meet me and be like hey this non-musician like knows shit and appreciates stuff in a technical way, you know. But it was kind of novel right, because I was this engineer dude who was like technical computer programmer whatever, but I love music, and I’d done enough reading on music theory from books...”

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#1 The Relentless Allan’s best friend is a multi-instrumentalist and an aspiring composer, and Allan himself has an affinity for music and a great intellectual curiosity in general. Despite having shaky hands, a cognitive impairment that prevents him from sight-reading music, he has managed to become “the worst bass guitarist ever” to have played in a band, as well as developed a wide social circle with musicians and composers within both the classical and popular spheres. His approach to learning music is not well supported by traditional musical instruction. The emphasis on developing ‘reading’ skills in order to play music sets the stage for failure and frustration, and despite the well intentions of the teachers, most do not know how to teach music without being able to refer to a ‘text’.

Case #2: The Hobbyist, age 26

“I sing for fun. I would never sing in a choir or be judged by other people while I’m singing (laugh).”

“There’s a news article in the summer, talking about the kookaburra song... So I looked it up on YouTube, and all the hits on YouTube were people playing kookaburra on the ukulele. So that sort of planted the idea where I wanted to learn this song on the ukulele... that’s when I start really really getting into looking up ukuleles and stuff.”

Continued

#2 The Hobbyist Chloe has always loved to sing just for fun. Singing along to pop songs, singing in video games, but not singing in a choir. Her mother put her in piano lessons for two years when she was young, and it wasn’t long before she quit because she didn’t like practicing. Her interest in Ukulele developed last year. Her friend was talking about the Ukulele for a good year prior to that, which lead her to looking up the ukulele online. She encountered websites, music videos, tutorials, and forums. It was a whole online world of Ukulele enthusiasts, with a prominent culture that was welcoming and unpretentious. Ukulele made music fun. She is pursuing it less intently now as she is approaching the end of her master’s degree in engineering. She has saved PDFs of chord charts for songs she’d like to learn, and she plays the ukulele as a destressor and a break from her research. It remains a passion that she likes to share, and she has many plans about what she would like to do with the Ukulele, once she has more time.

Case #3: The Musical Silo, age 41

“...Bach etudes, how they are used for learning, and how mathematical they are... So that’s one thing that probably got me thinking, that there’s more to music than just... some sound.”

“...the thing is the moving around part. This could have been the reason why something like music, that needs a dedicated steady practice and learning, hasn’t really fit into my life. How I can do that is a challenge now. I’d like to know the best way, or if there is a way, to learn the music in a lifestyle like mine, where it’s all over the place.”

Continued

#3 The Musical Silo Just as there are those that seem to have an affinity or natural inclination towards music, for others it was something that was simply ‘there’ and did not merit much attention or excitement. For Giles, music did not have meaning on its own, and there was no discourse about music during his childhood in Iran and teenage years in Japan that sparked a musical interest or encouraged him to explore music, until he met musically inclined friends during his university years in Canada. There is a sense of frustration when he describes his musical interest. Having been inspired by the potential meaning that music can carry, he is interested in exploring how music can manifest through himself. For now, he is a devoted listener, putting aside time at least twice a week to listen to CDs in addition to listening to them while he works. He gets excited thinking about instruments that ‘teach’ you music, such as guitars with positions lighting up, or virtual keyboards that can be projected and thus mobile. Even though finding a teacher is the most obvious avenue, he is cautious to engage in such social and financial commitment when he feels he is still not sure how he would like to learn.

Case #4: The 'non-musician', age 49

“When the trumpet gets smaller, the intonation problem exponentially rise, and the piccolo trumpet is the worse one because they are the smallest one. Hard to produce a sound, and very hard to play in tune. So when a trumpet player, if you are not experienced, when you first play on a piccolo trumpet it sounds like you’ve never played an instrument before. So, the piccolo trumpet actually taught me a lot.”

Continued

#4 The Classical “non-musician” Despite playing trumpet since his early high school years, Simon feels very strongly that he is very far away from being a real musician. His process of learning involved a couple of years of trumpet and piano lessons, some conservatory exams and playing “badly” in a community orchestra for 9 years in HK, all of which slowed down significantly when he entered college to become a physiotherapist, and stopped entirely when he emigrated to Canada. His decision to pick up the trumpet after many years of absence was to set an example for his son as he embarked on his own musical journey. Simon has prepared for conservatory exams, independently for the most part, for the purpose of learning music, setting an example for his son and as an act of pursuing something that he loves. The conservatory curriculum provides structure, a sense of trajectory, while he prioritizes other aspects of his life as a health professional, his family, and in particular the raising of his two children.

Case #5: The Outlier, age 48

“I’d be in grade 9 it’d be a senior person going off to college and say... I remember specifically a Frank Zappa’s score:

‘Oh, it can look like that?’

‘Yeah, this is where it says turn around and place both buttocks across the keys but your crack has to be exactly C.’

‘That’s weird. Ok.’

So, curiosity-based rather than systemic study or knowledge acquisition.”

Continued

#5 The Outlier Jason loves music, or as he likes to describe it, he loves to just make noise. For Jason, sounds have an inherent quality in them that makes them interesting, and offers endless possibilities of combinations and arrangements. Being diagnosed with autism albeit much later in life, Jason’s process of learning music is a creative and experimental one. Garage Band’s interface for musical composition opened up a whole world of possibilities for him. For one, the square ‘keys’ denoting different pitches and timbre allowed him to drag his mouse around the screen in order to ‘find’ the sound he’s looking for. He describes his compositional process as “contrapuntal”; there is no preconceived structure or plan as to where the music is going, it just starts with one note, and the question is, what sound will suck the least following that one? Garage Band’s ability to transcribe his compositions into western notations also facilitates a kind of sharing that was never possible before.

Research Findings: Towards a Model of

Music Knowledge Seeking Behaviour

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From just reading the excerpts, you could probably draw out many themes that are worth of discussion and exploration. However I will focus on the findings that are directly related to the development of user profiles based on music information seeking behaviour. Grounded theory was used as the methodology during data analysis, whereby theorizing is an emergent process rather than a hypothesizing process, consistent with the symbolic interactionist approach this research has taken. During the coding process, *Motivation* emerged as a important concept that tied together many different ideas that are related to how people seek out music knowledge on their own.

Music Info Seeking Behaviour

Emergence of Information Need

- **Inspiration**: external influence
- **Curiosity**: internal drive

Cultivation of Interest

- **Novelty**: external discovery
- **Experimentation**: personal discovery

Continued

The concept of *motivation* allows us to differentiate not only between self-directed learners and institutional learners, but also between types of self-directed learners within the domain of music. Four concepts emerged that helps us further delineation those differences. They are *Inspiration*, *Curiosity*, *Novelty* and *Experimentation*. *Inspiration* and *Curiosity* allows us to describe the ways in which information needs for music emerges, while *Novelty* and *Experimentation* describes the processes through which one cultivates a new or existing interest in learning music.

Music Info Seeking Behaviour

Types of Information

- **Encoded** (scores, recordings, etc.)
- **Embodied** (listening, playing, etc.)

“Encoded information is natural information that has symbolic, linguistic, and/or signal-based patterns of organization. Embodied information is the corporeal expression or manifestation of information previously in encoded form.”

Bates, M. J. (2006). Fundamental Forms of Information. *JASIST* 57(8), 1033-1045.

Continued

I will frame the discussion under two headings, reflecting the primary forms of information through which music knowledge itself is mediated: that is, through its ‘encoded’ form (such as music scores and audio visual recordings) and through its ‘embodied’ form (such as the act of listening or playing music).

The definition is drawn directly from Mary Jane Bates’ article, where she specifically refers to a need to define forms of information that reflect the modes of information transmission that are unique to the arts and humanities: *“Encoded information is natural information that has symbolic, linguistic, and/or signal-based patterns of organization. Embodied information is the corporeal expression or manifestation of information previously in encoded form.”*

This distinction may be obviously to ethnomusicologists, but information-based research within the domain of music has primarily focused on music as an encoded entity. Music Information Retrieval is conducting research that are based on the western-european conceptualization of music, such as genres, music theory, and instruments. And this is for practical reasons. Firstly, the research community is quite small and they need to focus their efforts based on an agreed upon paradigm of music, and secondly the findings are motivated primarily by their commercial applications to help consumers find new music to purchase. While there is a brave new world of music knowledge, it is an area of research that is neglected within my field, although there are many relevant studies to draw upon in fields such as ethnomusicology and music education.

Mediation of 'encoded' knowledge

Emergence of Information Need: **Inspiration**

"...it was something I had never considered until she had one and was trying to learn. And I was like, it sounds like a really fun instrument." ~ Chloe

Emergence of Information Need: **Curiosity**

"I started reading about them, and I saw a lot of youTube videos of people playing the ukulele... I did a lot of online research, and then I chose a ukulele and I ordered it, and started teaching myself."

Continued

First, we'll talk about encoded forms of information.

Information needs emerge as a result of not knowing something. Sometimes this information need is *inspired* by things external to oneself, such as when Chloe's friend starting playing the Ukulele a year prior to her. *Inspiration* requires a certainly level of receptiveness. It leads one down a path with potentiality, rich for exploration, with the promise but not the guarantee of a destination.

Other times, one is in fact actively seeking out information due to a sense of *curiosity*, such as Allan and Jason's tendency to constantly ask questions. While *curiosity* can of course be *inspired*, as it was in Chloe's case, it is differentiated by the explicit or implicit intent to seek out something.

Mediation of 'encoded' knowledge

Articulating what you don't know:

"I've always been interested in music. I never had, as I was growing up, I never had proper training in music. So I almost always felt that I would be good at it or like it. But I never knew what it was like or how good I could be. So I always wanted to try it and see how it turns like." ~ Giles

Continued

Individuals who are *curious* seek out specific kinds of information, regardless of whether they are able to clearly articulate what that is, while individuals who are *inspired* had happened upon something, either online or in real life. It is the intention behind the information seeking that differentiates the two.

The concept of *curiosity* and *inspiration* allows us to create a spectrum that reflects a range of internal and external motivators that help us describe how music information needs emerged.

Mediation of 'embodied' knowledge

Cultivation of Interest:

“So, one of the themes is keeping myself interested enough to do this grunt work right? DO the boring horrible make-your-fingers-form-the-chord, I mean that’s the painful part right? Build the calluses so you don’t bleed when you play the guitar. Get your hands strong enough so you don’t get cramps when you’re playing the guitar. That’s difficult to do in my life as a lame child, who’d be cranky and go, ‘Ehhh I don’t want to do it’ and give up, just walk away.”

~ Allan

Continued

Qualifying music information needs is useful for developing user profiles from which information services can be developed. However, the pursuit of music knowledge does not and cannot exist purely in information systems which are designed to transmit encoded forms of information. Put it another way, knowing what triggers an information need is really not a complete enough picture.

In fact, it would be fair to say that music is not learned through being in a library or by looking up videos, it is learned through active and embodied pursuits such as listening and playing. This is the kind of embodied knowing that cannot simply be digitized, distributed and consumed. What emerged during analysis was that the development of a musical interest is often the beginning of the pursuit of embodied forms of music knowledge, something that information systems cannot encode and transmit, but can facilitate the process in some way.

Mediation of 'embodied' knowledge

Cultivation of Interest: Novelty

“There’s a bunch of early adopters Eigenharp players who were recording tutorials and demos... So that’s a source of constant interest to me.”

Cultivation of Interest: Experimentation

“I don’t know what the structure is, I don’t have any preset notion of that. I just start... in a sense banging away, and over time try and figure out how things suck less. I’m a big fan of the notion of ‘sucking less’, rather than saying it’s perfect.”

Continued

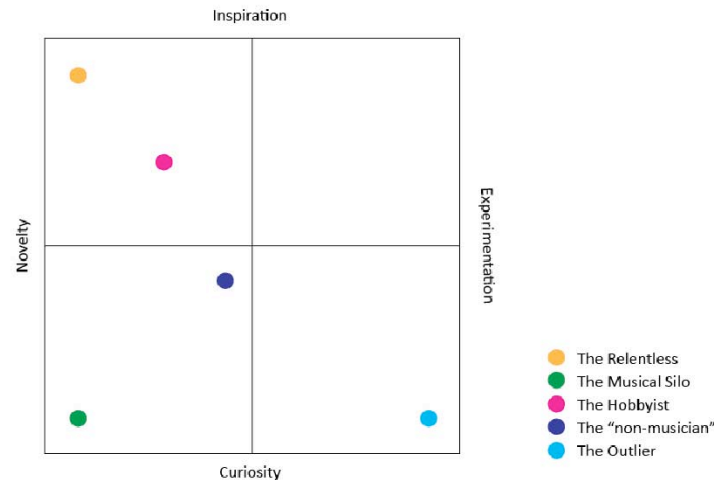
For self-directed learners, going from encoded to embodied forms of music knowledge reflects changing levels of commitment, dedication and interest levels. The pursuit of *novelty* and *experimentation* are ways in which a musical interest is cultivated or maintained. Both are situated in relation to the established norms of our everyday experiences.

For example, *novelty* is found in external influences that transform a normative experience, such as Allan’s discovery of the Eigenharp and the way it makes electronically produced sound with much more expressive potential than what MIDI traditionally facilitates. While *experimentation* is a process in which one strives to create something that did not exist on one’s awareness before, such as Jason’s creative process of learning music.

Just like our discussion of inspiration and curiosity, there are some overlap in meaning between the concept of *novelty and experimentation*. In some ways, *novelty* is the experience of other people’s *experimentation*, and both result in a way of seeing the world differently to various degrees.

However, the concept of *novelty and experimentation* maps a spectrum of processes through which self-directed learners seek music knowledge without placing an emphasis on how much time one puts aside to learning, which seems to qualify musical aptitude as belonging only to those who have spent a lot of time *playing* music, and ignore the amount of time people might spend *listening* or engaging with music in some other way.

User Model of Music Info Seeking?



Continued

Part of the purpose of my research is to develop a holistic way of understanding music information seeking behaviour. While the five cases are a very limited sample, visualizing them along the two spectrums facilitates further analysis to determine whether such relationships are meaningful, if at all, and how so.

The combination of the two spectrums, addressing both encoded and embodied forms of music knowledge, allows us to think about not only *how* music information needs emerge (along the vertical axis), but also what *kinds* and *genres* of information self-directed learners are seeking (along the horizontal axis). Someone wanting to pluck their favourite Beatles tune on the guitar might not be looking for the same genre of information as someone who wants to learn how to read guitar tabs. Understanding users needs, and being able to generalize types of music information behaviour is a beginning to the development of better information services for delivering music knowledge of all kinds.

While this theory of music knowledge seeking behaviour was developed as a result of studying non-musicians engaged in self-directed learning, it is designed to include individuals at various stages of learning and musical skills. Understanding the motivations of self-directed learners help us understand better *how* and *why* music knowledge is sought out, the larger overarching processes of learning music that needs to be considered, and how such motivations transform, and are transformed by, information seeking and learning behaviour. Online music knowledge can never replace the role of one-to-one transmission, but it can facilitate and support that process, with the potential to overcome barriers of geographical and cultural distance.



Questions and feedback welcomed!

THANK YOU

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