

Is “Watching and Copying” the New “Listening and Copying”? Situating YouTube in How Popular Musicians Learn

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Abstract

This article examines the role of YouTube in how young popular musicians learn in the twenty-first century. I frame this question within the dual legacies of Lucy Green’s (2001) findings about “listening and copying” among popular musicians and Marc Prensky’s (2001a, 2001b) “digital natives” hypothesis. I present an ethnographic description of a music learning encounter that raises questions as to whether there is a generational change occurring, one which shifts the primary mode of informal music learning from listening and copying to watching and copying via YouTube videos. I argue that learning via YouTube constitutes a form of informal learning, one situated within a longer history of learning strategies based in available technologies and resources. I suggest that in the midst of this continuity, digital videos present at least one new phenomenon within popular music education: the ability to abstract single lines and riffs from their musical contexts.

KEYWORDS: digital natives, informal learning, popular music education, technology, YouTube

Introduction

More than a decade ago, Janice Waldron opened her article on “the role of YouTube” with the sentence, “That online communities exist as intentional congregational and valid spaces in everyday twenty-first-century life is no longer

an issue of debate” (2011: 190). The veracity of Waldron’s statement has only grown since 2011, particularly in light of the sudden move to online work, education, and sociality that affected many people, particularly in the Global North, during the COVID-19 pandemic. However, the implications of omnipresent digital space have perhaps not been fully explored within the field of popular music education. While numerous scholarly articles in music education and related disciplines discuss YouTube and other digital sites, spaces, and tools, these tend to either treat the digital as supplementary to face-to-face education (for example, Waldron 2013a, 2013b) or to focus on encouraging music educators to make use of the affordances of digital tools in their pedagogical practice (for example, Cayari 2018; Mukhataeva 2021). In this article, I suggest that the full scope and implications of the rise of rapid, easily available video sharing via YouTube have not yet been explored in popular music education, and I will attempt to move this conversation forward by examining the role of YouTube instructional videos in a contemporary popular music education institution.

I begin by introducing my research with a private rock music school in Ireland and situating it within two vital streams of academic inquiry whose foundational publications both date from the first year of the twenty-first century: Marc Prensky’s (2001a, 2001b) “Digital Natives, Digital Immigrants” and Lucy Green’s (2001) *How Popular Musicians Learn*. I then recount a teaching interaction that I witnessed in which a generational conflict in learning strategies was made very visible. I discuss what this interaction and others like it might tell us about the rise of YouTube as a core educational resource for young people, examining YouTube within the context of informal popular music learning and asking what, if anything, is fundamentally changed by this form of online music learning. I ultimately argue that YouTube videos might be considered a type of informal learning, one continuous with other forms of informal learning though with at least one key divergence. I suggest that the role of YouTube – and digital technologies in general – ought to be more fully considered by popular music educators and researchers today.

Research Context: Rock Jam and COVID-19

This article is based on ethnographic research conducted in 2021 with Rock Jam, a private, fees-based popular music education organization based in Dublin, Ireland. During the academic year, Rock Jam holds weekly “jam sessions” for students ages seven and up: hour-long rehearsals in which an instructor works with a small band of anywhere from 2 to 9 students of similar age. The students and instructor collaborate to put on a live performance at the end of each three-month term. From June to August each year, when local schools are not in session, Rock Jam holds a series of week-long summer camps at multiple locations throughout Dublin. Summer camp attendees are also grouped into age-based bands, and they are tasked with choosing, learning, arranging, and rehearsing a song that will be performance-ready by the end of the week. On Friday, the final day of camp, each band plans, coordinates, and shoots a music video, mixing live-action performance footage with other shots selected, directed, and filmed by the students using

GoPros. Both the student-created music videos and footage of the live end-of-term “gigs” during the academic year are treated by professional video editors, and these are then uploaded to Rock Jam’s own YouTube page.

Rock Jam band rehearsals comprise child-centred (Dale 2017), non-formal learning spaces (Mok 2011; Higgins 2016) in which students are given significant choice over repertoire, learning methods, and desired outcomes. Instructor-facilitators called “coaches” adapt their teaching strategies to account for student preferences, abilities, and prior knowledge, as well as intra-group social and musical dynamics. As the bands are formed based on age rather than skill level, they can and often do include students at significantly different stages of musical learning. Similar to School of Rock in the United States, Rock Jam recruits instructors whose educational backgrounds lie mainly in performance rather than education, and they emphasize the performance element as differentiating the organization’s offerings from more traditional music education (Rush 2021), though a small minority of Rock Jam coaches have undertaken or are currently engaged in teacher training courses. These activities are fees-based and do not receive any state funding support; as such, they are de facto limited to middle- and upper-middle-class students. Rock Jam’s principle area of work is in South Dublin, an area of the city known for having a higher-than-average cost of living (in a city whose average cost of living, particularly with respect to housing, is already notoriously high).¹

In June 2021, when I first commenced research with Rock Jam, the vast majority of school students in Ireland had spent a significant portion of the past fifteen months learning online due to the COVID-19 pandemic. While Rock Jam had also been able to hold summer camps in 2020, their ability to deliver in-person musical instruction during the academic year had been significantly curtailed, though coaches continued to teach lessons and workshops online throughout the pandemic. While the organization had lost a number of its “regulars” to school completion during that time, both new and former students flocked to the summer camps, which were all fully booked, for a taste of non-virtual musical activity and social interaction. The pandemic context is worth noting as I turned to the following discussion of digital engagement and informal learning. While Rock Jam students’ use of YouTube videos as music educational resources certainly predated the pandemic, their facility and familiarity with the internet as a location for learning has certainly been affected by the extended period of online instruction.

Academic Context: *How Popular Musicians Learn* and “Digital Natives, Digital Immigrants”

Lucy Green’s 2001 monograph *How Popular Musicians Learn* called attention to the informal learning strategies employed by fourteen popular musicians across several generations. It is difficult to overstate just how influential this book has been, particularly within the discipline of popular music education, for which Green’s book is considered a foundational text. Central to Green’s findings is the primary role of “listening [to] and copying” recordings, which she calls “[b]y far the overriding learning practice for the beginner popular musician” (ibid.: 61). The

informal practices of listening and copying further contribute, she notes, to “the development of performance skills” and “compositional skills” (ibid.: 75). She suggests that music teachers and institutions have much to learn from popular musicians’ practices, and that incorporating listening and copying into formal music education contexts could prove both more engaging and enjoyable for students and better at developing a broader range of musical thought and skills (ibid.: see especially Chapter 7). Green was later given an opportunity to test these theories in schools (Green 2006, 2008), and her pilot project quickly developed into the multinational Musical Futures programme (see for example Jeanneret 2010; Wright et al. 2012; Costes-Onishi 2016; Hallam et al. 2017; Moore 2019).

In the same year that Green’s book appeared, Marc Prensky published the two instalments of his “Digital Natives, Digital Immigrants” (2001a, 2001b). Though grounded in observation as an education professional rather than in academic research, the digital natives hypothesis spread rapidly and has been picked up and cited in tens of thousands of research publications in the intervening two decades. Prensky argues that emerging technologies, and in particular the internet, have created a new generation of learners unlike those ever seen before, who “think and process information fundamentally differently from their predecessors” (2001a: 1). He proffers the term “digital natives” for this (then-)new generation of learners (who would today be called millennials), contrasting their ways of engaging with technology, learning, and the world with those of their parents and teachers, whom he identifies as “digital immigrants”. While subsequent research has consistently called Prensky’s hypothesis—and academics’ uncritical adoption thereof—into question (Bennett et al. 2008; Evans and Robertson 2020), the language of digital natives and digital immigrants has proven both popular and resilient, and it continues to circulate in educational scholarship and pedagogical literature.

Apart from their year of publication, these two works appear to have little in common. This is despite the fact that there is theoretically some overlap between the generations the two authors treat: Prensky’s digital natives are held to have been born “roughly between 1980 and 1994” (Bennett et al. 2008: 776), while six of Green’s fourteen interviewees were aged between 15 and 19 when the interviews were held in 1998 and 1999 (Green 2001: 8-9), placing their birth years roughly between 1978 and 1984, and thus at the earlier end of the “digital natives” range. However, where Green found continuity of practice across generations, Prensky saw radical disruption, and where Prensky suggested that digital and digitally inspired teaching methods are required to engage a new generation, Green argued that informal pedagogies based in an older, more established technology (audio recording) can reimagine music education for a younger generation—a recommendation whose validity appears to have been confirmed by the success and popularity of Musical Futures and other programmes inspired by Green’s research.

In attempting to chart a path forward from these two texts, it is worth noting that I do so as a member of the very generation that Prensky identified as the paradigm-altering digital natives, and as an early-career researcher in a discipline (popular music education) that counts Green as one of its foundational thinkers. In assessing their relevance for the third decade of the twenty-first century, I argue that we must

first recognize that Prensky's claims have been somewhat overblown—so much so that several scholars have argued compellingly that they amount to an academic “moral panic” (Bennett et al. 2008; Bennett and Maton 2010; Evans and Robertson 2020). Extensive reviews of the intervening literature demonstrate that there is no compelling research evidence for a generational shift in learning strategies of the magnitude suggested by the digital natives narrative, revealing that intra-generational variations are just as significant, if not more so, when it comes to technology usage in and for education (ibid.). At the same time, though, it is incumbent upon researchers and teachers in popular music education to recognize that the state of play *has* changed—if perhaps not utterly—and that Green's book perhaps no longer reflects the entire story of “how popular musicians learn”. The task of researchers in 2023, then, is to examine and explicate what has changed and what has not, and how digital video sharing and other technologies have or have not altered music education. This is the task I seek to undertake in the remainder of this article, beginning with an extended description of a teaching interaction I witnessed that made clear the primary role that YouTube plays for many young guitar learners, and which thrust to the fore the (potentially) conflicting strategies of “learning and copying” audio recordings and watching and copying YouTube videos.

An Ethnography of Riff Learning

While researching the Rock Jam summer camps in 2021, I observed a rehearsal of a five-person band, four boys and one girl, all teenagers or pre-teens. The band was coached by Star-Lord, who fittingly suggested the pseudonymous band name “Guardians of the Galaxy” for this article.² While sitting in the Guardians' rehearsal, I noticed that the three boy guitarists (Conor and Zackary on electric guitars and Daniel on bass guitar) did something that many other students, especially boys, often do in their free time at Rock Jam, and in other rock schools I have observed: practicing well-known riffs and soloing on their own. Star-Lord and many of the other teachers refer to this undirected, spontaneous solo playing as “noodling”, and this is how I have come to think of it as well in the course of my research. Having already rehearsed the original song that the students had written for the end-of-week video performance, Star-Lord suggested that they try “jamming” a new song for a change of pace. When he asked if anyone had a suggestion, Conor suggested “Taunt” by the band Lovejoy. Conor already knew how to play the song's repeating guitar riff, and he demonstrated this for the others.

Star-Lord had never heard “Taunt” before, so he pulled it up on his phone to play for the group. While it was playing, Zackary and Daniel scrolled through their phones and did not appear to be listening. Conor, meanwhile, played along quietly with the recording whenever the riff was repeated. Star-Lord then proceeded to find a tab sheet on the internet, also on his phone, and he used this to first teach the riff's bar chords to Emily, also an electric guitarist and the lone girl in the band. Star-Lord demonstrated how Emily could play the entire riff using the “same shape” across different frets. Zackary and Daniel remained on their phones. Star-Lord then moved on to working out and teaching Daniel the part for bass guitar, which is Star-

Lord’s own primary instrument. Star-Lord picked up one of the additional basses in the room and, listening to the song quietly on his phone, played along with the recording to work out the bass line by ear. To check whether this was correct, he then played his part alongside Conor and Emily. Zackary and Daniel remained on their phones.

Star-Lord taught the bass part to Daniel and then at last came to Zackary. To an outsider, Zackary would appear to be the Guardians of the Galaxy’s most skilful and confident player. He regularly practiced difficult riffs on his own, and he was also an adept soloist and improviser, demonstrated by his extended guitar solo in the Guardians’ original song. However, Zackary noticeably struggled with learning the “Taunt” riff, moreso than his peers. When Star-Lord first attempted to teach the part using chord names, Zackary did not understand these, so they used fret numbers instead, with Star-Lord demonstrating how the bar chord hand position moves between the frets. Zackary became visibly frustrated during this process, and when the band played the riff together, he intently watched either Star-Lord’s or Emily’s hand placement and tried to copy them.

Perhaps the most interesting part of this session, though, was the band’s series of attempts to play through the riff together. The repeating two-measure rhythm of the “Taunt” riff features a measure of silence over which a single instrument solos or the vocalist sings, with the ensemble returning on the following downbeat for the reiteration of the rhythm on the next chord. However, it proved very difficult to get the students to pick up on this. Conor, the band expert on the riff, tended to leave a space of untimed or indiscriminate length before starting again, always ahead of the downbeat, and the rest of the Guardians followed his lead. Star-Lord first had them play along with the recording, and after a first difficult try he attempted to explain to them what was happening rhythmically. Ultimately, they could only play in time with the recording when Star-Lord yelled ‘three, four!’ on the rests to prepare them for the downbeat. Though he tried to progressively wean them off the dependence on him counting the rests, they did not make much rhythmic progress in the twenty minutes or so before the rehearsal’s end.

I spoke with Star-Lord after the students filed out to the next session of the camp, curious to get his take on the interaction as an experienced Rock Jam coach. I remarked on the seeming inaccessibility of the listening and copying paradigm for the guitarists, particularly the boys, noting how this contrasted with the prevailing wisdom in my own field. Star-Lord characterized this as a mismatch between “visual” learning (that is, watching and copying) and learning “by ear”, associating the former with the YouTube videos that he knew the boys used to access riffs and soloing techniques. He said, “Most people like to learn visually because it’s easier”, adding that in his opinion aural learning, while more difficult, was a vitally important musical skill. This matched my own reading of the situation, as I had noticed how Zackary and Daniel had responded best to watching and copying Star-Lord’s finger placements and patterns, as opposed to chord names or aural learning. Referring to the self-directed means that students use to learn apart from or prior to beginning instrumental lessons, Star-Lord said, “When you teach private lessons you have to fix a lot of things”, including teaching music theory so that they have aural and theoretical building blocks (such as chord names and rhythmic patterns) on which to situate their musical knowledge and further learning.³

Is YouTube Changing How Popular Musicians Learn?

In the Guardians of the Galaxy, as in many other Rock Jam bands, YouTube proved to be the primary means by which students learned and encountered music and music education, with Rock Jam playing a secondary role, one of both building on that autodidactic training and “fixing” incomplete or absent musical knowledge, to use Star-Lord’s term. The importance of YouTube as an educational resource was in many cases communicated directly by the students themselves during rehearsals, and it was also pointed out to me by the coaches. It is clear that digital technologies, predominantly YouTube, are key to how these young people access musical training and learn to play instruments. What is less clear (or rather, still under-researched), though, is whether and how YouTube is changing the learning strategies of popular music learners. The account above seems, at first glance, to suggest a fundamental generational shift, not unlike Prensky’s digital natives hypothesis; however, I would like to suggest that the answer to this question is much more nuanced.

In their critical analysis of the “digital natives’ debate”, Bennett and Maton suggest that scholarly and theoretical progress on the questions raised by Prensky have been impeded by “historical amnesia”, wherein “[d]eclarations of fundamental change obscure if not explicitly deny past precedents for contemporary change” (2010: 328). Historical amnesia regarding shifts in music education is not new to the digital age, as evidenced by Cohen’s (2009) study of institutionalization in the Jewish cantorial tradition. Bennett and Maton argue, “This thinking also prevents us from discriminating between genuinely new phenomena and those which are extensions of existing interests and well-recognized behaviours” (2010: 328). While further research into these questions is certainly needed, particularly within the study of music cognition, here I would like to make a first effort to respond to the question that these authors raise. With regard to YouTube and digital video-sharing sites, what comprise “genuinely new phenomena”, and what “extensions” of pre-existing educational resources, strategies, and behaviours?

In answering this question, it is first worth noting Star-Lord’s own uses of digital technologies within this interaction, which are not unique in this setting: nearly every coach at Rock Jam regularly uses a smart phone in rehearsals to find information, access recordings, and create their own recordings of student-written songs-in-progress. Using digital technology allows for flexible, student-centred teaching, as if a student names a song or artist they like or requests to play a certain piece, the instructor can access and share it immediately. Note as well Star-Lord’s own hybrid approach to learning the new song: while he worked out the bass guitar part by listening and copying on his primary instrument, he supplemented this aural strategy with written popular music notation—guitar tabs accessed online—when learning the electric guitar riff. He then utilized a variety of strategies to teach the riff to the band members individually, adjusting his approach rapidly to match each student’s skills and knowledge. Thus, digital technology appears to be one resource in a wider popular music teaching toolkit, a toolkit that is employed flexibly and responsively, tailored on the spot to individual student needs. I observed similar

hybridized and individualized approaches in all of the Rock Jam bands during my research.

This suggests that each individual popular musician avails of the various technologies available to them to further their informal musical learning. This is not a new phenomenon, as demonstrated by Vogel’s (2015) study of music correspondence schools in the early twentieth century, which utilized the relatively new technology of the postal service, and Linklater’s (1997) investigation of audio and video music education resources for young instrument learners. Ready and relatively inexpensive access to recorded music influenced the learning strategies of Green’s research participants who learned by listening and copying (along with a number of the adult Rock Jam staff), while many younger learners appear to be making use of widespread access to high-speed internet and the many affordances of YouTube. This was not only the case with students or relatively new learners: one of the younger Rock Jam staff members, a recent university music graduate named Laura, reported that prior to entering university he had been entirely self-taught using YouTube videos. Laura had been able to reach a very high standard of performance using these means, to the point that his band was invited to play at Ireland’s popular Electric Picnic music festival.

Furthermore, YouTube appears to be most used by those popular music learners who lack access to a more established, non-technological source of informal learning: the family (Rice 2003; cf. Hand 2018). Students with access to a guitar-playing parent or relative (usually male) were far more likely to report having learned riffs, chords, and techniques from that family member, or to use digital resources supplementally or in tandem with family-based learning, rather than as their sole or primary source of informal music education outside Rock Jam. YouTube, then, serves a vital role in providing access to learners who cannot avail of familial mentors. This was the case for Laura, whose parents enjoy music but do not play themselves. In the focus on various technologies and their associated modes of learning, it is important not to lose sight of this more traditional site of musical learning, which continues to remain very relevant in the twenty-first century.

The ethnographic account also emphasizes, perhaps more than any other aspect, the non-linear nature of informal learning. In comparing formal and informal modes of music learning, Rice writes, “In the absence of [formal] teaching, learners often seem to acquire rather complicated skills before or at the same time as they acquire seemingly simpler ones” (2003: 79). This was clearly the case for several members of the Guardians of the Galaxy, who demonstrated high levels of proficiency in certain skills, such as improvisational soloing, but who lacked other types of knowledge, such as chord names, which would be presented as essential (and thus taught at an earlier stage) in a more formalized educational setting. This non-linearity serves to better hold learners’ interest and keep them engaged in the learning process (Green 2001: 207-209), though it may present some challenges when it comes into contact with a non-formal, institutionalized learning environment such as Rock Jam. As Star-Lord suggested, it may also present certain barriers to further progression in learning – or rather, the acquisition of theoretical skills may open further musical possibilities that were not previously available to

the student. (Many of the Rock Jam coaches shared this latter narrative with me with regard to their own learning, suggesting that the formal acquisition of “theory” after having learned informally significantly expanded their musical knowledge and capabilities.)

While I have up to this point placed YouTube learning within a longstanding tradition of informal music learning via available resources and technologies, I argue that digital video sharing presents at least one “genuinely new phenomenon[on]” (Bennett and Maton 2010: 328) in music learning, namely, the ability to abstract individual instrumental parts and riffs from their original contexts. While someone learning a riff by listening and copying a recording would, of necessity, hear the riff within its ensemble context – and often within the context of the entire song – the wide availability of instructional riff videos means that a learner engaged in watching and copying on YouTube can learn a complex riff in its entirety without ever listening to the song of which the riff is part or hearing the other instruments that support the soloistic riff. This is not entirely unprecedented in music education, but the closest equivalent comes from notation-based learning of Western classical music, in the form of small, excerpted parts from various large orchestral works. Many classical music learners (myself included) study, practice, and play these “orchestral excerpts” as a core part of their training, but they receive relatively few, if any, opportunities to practice and play them within their large-scale orchestral contexts, particularly if they do not pursue careers in music performance. The abstraction of popular music riffs does, however, appear to comprise something “genuinely new” in the field of popular music education, which tends to eschew written notation.

Learning abstracted portions of music in this way—whether guitar riffs or orchestral excerpts—can, in turn, potentially lead to difficulties in ensemble playing and rhythm. This appears to have been the case for Conor, who could already play the “Taunt” riff exactly but needed significant prompting to play on the downbeat and in time with his fellow bandmates (including the band’s drummer, Sandro). While students with rhythmic struggles are nothing new, and while in any student cohort some will take more quickly and easily to rhythm and ensemble playing than others, in the course of my research several Rock Jam coaches mentioned to me that they have witnessed a recent increase in the number of students with significant rhythmic difficulties, and they believe this may be due to the prevalence and popularity of YouTube learning. Targeted research is needed to establish whether there is indeed a causal link between YouTube and students’ rhythmic abilities, but the coaches’ perspectives as experienced popular musicians and music educators should not be discounted.

Instructional YouTube videos in and of themselves do not comprise informal teaching practices; in fact, as Gibson points out, moving informal teaching or facilitation into digital spaces is likely to shift the pedagogical approach toward “more formal instructional methods” since teacher and learner cannot meet face-to-face (2021: 153-154). However, I suggest that learners’ engagements and interactions with YouTube constitute informal learning, given their self-directed, interest-driven approach, their non-linearity, and their strategic use of available technologies. This is a widespread form of informal learning, particularly among young people, and its prevalence will only increase with the widespread move to

(and thus relative comfort with) digital education in the wake of the COVID-19 pandemic. This is not a generational shift, as Prensky’s digital natives thesis would imply: tellingly, a recent publication from Waldron and colleagues’ long-term investigation of adult learners in online and hybrid community music spaces features numerous references to YouTube as a key informal learning method employed by their research participants (Bayley and Waldron 2020). However, we cannot ignore the fact that numerous children around the world have been required to make a sudden shift to online learning, and we ought to watch closely the ways in which their engagements with digital spaces and educational resources develop in the late- and post-pandemic future.

Endnotes

1. Rock Jam delivers some partially state-funded training in schools through tenders from the public-private Music Generation programme, which in turn receives funding from Irish rock band U2, private philanthropic organizations, and Irish state bodies. However, the fees-based camps and jam sessions form the core of Rock Jam’s educational activities. Furthermore, the organization’s work with and for Music Generation is outside the scope of this research, which specifically examined private, fees-based rock music education.
2. All research participant names in this article are pseudonyms. I was able to conduct interviews with the majority of the Rock Jam summer camp staff, and all those interviewed were given the opportunity to choose their own pseudonyms, as Star-Lord did. The children’s pseudonyms have been randomly assigned using open-access lists of popular baby names from Ireland’s Central Statistics Office. Research participants’ racial and ethnic backgrounds have been omitted in order to protect their privacy, as students and staff of colour form a very visible minority in Rock Jam, and race could thus be used to identify otherwise anonymized participants (cf. Hall 2018: 8).
3. While the students’ genders are of course important in this account, a discussion of gender and guitar learning is outside the scope of this article (but see Rush 2021, 2022).

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