

Manifestations of interactivity in music and their commercial potential in the music industry's contemporary political economy

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Declaration

I declare that the work in this research paper is, except where otherwise stated, entirely my own work and has not been submitted as an exercise for a degree at this or any other university.

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For Lorraine and Stevie.

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1. Introduction

Interactivity has been slow to infiltrate the music industry, but recent years have seen an increase in the amount of interactive videos, applications and software released either by or in conjunction with musicians, start-ups and established industry bodies. Interactive music videos have become somewhat common since the release of *The Neon Bible* (2007), a Vincent Morisset production for Canadian indie rock band Arcade Fire. A handful of videos are released every year, but Björk's *Biophilia* (2011) could be characterised as the true watershed moment for interactivity in music, the point at which it became more than a fad and new avenues for both artistry and commerce within the music industry were opened.

This distinction between artistic and commercial is essential to understanding the effects of rapid technological progress made over the past 20 years on the music industry. Although the internet has made music more accessible to consumers and streamlined the relationship between musicians and fans, it has also undermined the workings of the music industry as a political economy. Marketing, promotion and distribution have all undergone drastic change as consumers have migrated to the internet. Publishing and copyrights holders were initially resistant to its effects, while musicians have been reticent to use technology to diversify their artistic output.

1.1. Definitions of interactivity

Interactivity is a slippery concept that has required definition and redefinition. As an interactive narrative, interactive music videos are quite limited. They span a relatively short amount of time when compared to a video game or interactive film, and often do not challenge the user.¹ Interactive narratives are contingent upon 'third-order dependent messages'², according to Williams et al, (Kiousis 2002, 359). This is a definition with which interactive music videos comply quite easily.

¹ Challenge is essential to the 'flow' of an interactive gaming experience, according to Mihaly Csikszentmihalyi. If the challenge is less than the player's abilities, they will lapse into boredom, for the inverse: anxiety. (*Flow: The Psychology of Optimal Experience* 1990) The same can be said for interactive music videos, although they generally lack the complexity and narrative urgency of games.

² Third-order dependent messages: "... the interconnected relationships among exchanged messages" (Kiousis 2002, 359). A chat room is a good example of this concept. In theory, the progression of the narrative (or conversation) should become more dependent on messages previously exchanged within the narrative and less reliant on external factors.

In Morisset's *The Neon Bible* the user must move the mouse and click its buttons to control Arcade Fire frontman Win Butler's hands and face, make him cover and uncover objects or throw them around. Ace & Soucy's video for Azealia Banks' 'Wallace' (2015) requires the user to shift around in front of their webcam in order to interact with the image of Banks on screen. Every iteration of *The Neon Bible* and *Wallace* is different and specific to the user, whose input is required in order for the video to function beyond stasis.

Heeter is far more rigorous in defining six essentials of interactivity: complexity of choice available, effort that users must exert, responsiveness to the user, maintaining of information use, ease of adding information, and facilitation of interpersonal communication. (1989, 221-225) Heeter's definition can be used to determine just *how* interactive our interactive objects are.

Interactive music videos defy Heeter's definition in their general failure to facilitate interpersonal communication, while that may be intentional, the the lack of complex choices they offer the user also undermine their interactivity. In video games, interactive films or the music apps mentioned above, user choices are given a cumulative weight. Conversely, choices made in interactive music videos such as *The Neon Bible* and *Wallace* have no discernible relation to one another beyond the order they are made in. In that sense, they also fail the 'maintaining of information use' requirement as user choices do not add up to a greater, emergent whole.

1.2. Concept definition of interactive music video

Bolter and Grusin state that the internet remediates television and that video games remediate cinema. (2000, 47) It is their belief that fledgling mediums must be grounded in the conventions and style of antecedent mediums before they can evolve and be defined as an original format in themselves. Interactive music videos are no different. They remediate standard music videos, but given their function one might question whether future interactive music videos will develop the medium further or continue to use standard music videos as a template.

In *Picture Theory*, William J. Mitchell says that “the internet privileges fragmentation, intermediacy, and heterogeneity ... and emphasises process or performance rather than the finished art object.” (1994, 7) As an interactive object bound by the internet, interactive music videos are no exception; their main purpose, outside of promoting the musician’s work, is to encourage the user to play and reconfigure the video for their own enjoyment. Naturally, this detracts from “the finished art object” (ibid. 7) with user engagement and immersion prioritised ahead of a cohesive narrative.

Taking this knowledge into account, an interactive music video, in its most basic form, can be defined as *an internet-enabled promotional music video that gives the user choices relating to its narrative progression and outcome.*

The user must exert effort to affect the video using sensor technologies (mouse, webcam, GPS, etc.) and the video must be responsive to said efforts, however, third-order dependent messages are inessential. Interactions between user and video do not need to take on a cumulative weight.

1.3. Interactive music software within the purview of this research paper

Kiousis defines interactivity as the “interdependence of messages” but questioned whether it is a function of the medium or solely in the perception of the user. (Kiousis 2002, 357-358) This is a far broader definition with fewer requirements. In the case of music-related interactivity, this definition can stretch to ways in which music is consumed that somehow deviate from the artist’s intention, such as listening to an album in non-sequential order or skipping certain tracks entirely. One can say that music listening technologies are somewhat interactive, and that teens and young adults that have been raised with the ability to ‘shuffle’³ are making music consumption interactive through their reconfigurations of the text.

Under this broad remit, I could define music-listening technologies, such as the MP3 player, and software, such as Spotify, Pandora and last.fm, as interactive for the ease with which they allow the user to reorder playlists and switch between artists and genres at will.

³ A function popularised by Apple’s iPod MP3 player that makes random the order in which a particular playlist or album is played.

For the sake of this research paper, I will only consider such technologies and software within the broader scope of the shifting music industry, rather than objects of interactivity. However, my definition of interactivity in music will stretch to software such as Eyegroove, bBooth, Treehouse and WholeWorldBand: *technology that empowers the user to make music or interactive projects and collaborate with other users, within the confines of the application and with a view attaining popularity with a wider audience.*

1.4. Research objectives

This research primarily concerns interactivity music videos and other music-related interactive projects, but context is all-important. I want to discover how the music industry has had to reconfigure itself in the wake of mass filesharing and the rise of digital downloads, and how interactivity can and may be incorporated into music's new political economy. It is an area that has gone largely untouched in analysis of the music industry, but I believe it to be fertile.

2. The literature on the political economy of the music industry

This research paper focuses on the music industry in the digital age and the advent of interactivity as a new artistic and promotional tool for the music industry to utilise. Therefore this literature review is restricted to works written in the past 15 years.

Research into music as a political economy at the beginning of this century is often concerned with major legal and copyright battles and does not estimate the shape of the industry with any sense of foresight. When considering music as a political economy, one must bear in mind how a) rapidly the industry has evolved in the digital age, and that b) we are still very much in the midst of that evolution.

Leyshon (2001) may speak of the triumph of *hyperarchy* (market coordination) over hierarchy (traditional, capital-intensive organisational structures) and Kretschmer et al (2004) have some partially accurate ideas on how the music industry will structure itself post-Internet, but works by the likes of Baym (2010), Cvetkovski (2004), Frith (2000) and Williamson & Cloonan (2007) are dealing with its effects and comparing the industry with what it once was

2.1. Record industry as music industry

It is commonly noted throughout the literature that record industry bodies have made their subset of wider music industry synonymous with its parent in order to sensationalise further the effect of online piracy on legal sales. A number of studies in recent years have aimed to dismantle the notion that the record industry and music industries are one and the same, including Williamson & Cloonan's "Rethinking the Music Industry" (2007), Leyshon's "Time-Space (and Digital) Compression" (2001), and Sterne's "There Is No Music Industry" (2014).

Williamson and Cloonan (2007) introduce the term 'music industries' in "Rethinking the Music Industry" with the intent of dispelling the notion of record industry as music industry. They also found many different definitions as to what those separate industries might be. The

five 'music industries' are defined as recording, publishing, performing, instrument and musical theatre in British Invisibles' 1995 report *Overseas Earnings of the Music Industry*. Composers/publishers, instruments/audio-makers/sellers, promotion, management, agency-related activities, live performance, recording, retail/distribution, education/training are the seven industries identified by the UK's Department of Culture, Media and Sport in 2001.

Most reports agree on the importance of recording, live music, publishing, and artists and composers as distinct sectors, according to Williamson and Cloonan (2007). However, there is some scope for ancillary industries that do not trade in intellectual property rights.

Leyshon (2001) takes a less exacting approach when breaking down the making and consumption of music. Where other definitions break the music industry down to its base elements, Leyshon focuses on the indirect relationship between artists and consumers. He also identifies four distinct networks within the music industry: creativity, reproduction, distribution and consumption.

Leyshon gives a macro overview, and the four networks he identifies do not cover all the professions that make up the recording industry, nor are they meant to. He recognises that a wide range of people, both consumer and professional, are involved in making and selling of recorded music, and that all of them belong to one of his four networks, which follow consecutively along the production line from composition to purchase.

That is not to say it is comprehensive, however. Indeed, Sterne (2014) states that Leyshon misses "a lot by focusing everything around the musicians-audiences-recordings nexus." (52) Leyshon's analysis stretches to other areas of the wider music industry, but it doesn't distinguish live performance and music hardware/software makers. Leyshon pays little attention to the business done before composition and minimises the importance of promotion and marketing in the sale of music. Again, Sterne takes issue and argues that Leyshon is limiting his "understanding of music as a social practice to the objects sold as 'music'." (ibid. 52)

As far as the pervasiveness of the term ‘music industry’ as a misnomer is concerned, Sterne (2014) is willing to put it down to laziness: “[scholars] have been insufficiently attentive to the construction of our objects of research. We have accepted the ‘pregiven’ in Pierre Bourdieu’s words, rather than beginning with constructing our own objects.” (ibid. 51)

Indeed, literature from the early 2000s commonly uses ‘music industry’ as a nominal pseudonym for the record industry, which actually forms only a small part of the industry at large, but it is unclear whether this misuse is a misconception or a misnomer. Throughout “Time-Space (and Digital) Compression” (2001), Leyshon assesses the technical advances embraced by the ‘music industry’ when talking about the changes in recorded music formats. However, he also recognises that the industry has been reticent and even hostile in the event of major software advances.

He also says in “On the reproduction of the musical economy after the internet” (2005) that major recording companies have followed a two-pronged strategy that consists of: 1) suing peer-sharing sites and 2) buying the sites outright or appropriating their naturally rhizomatic methods of promotion when breaking new artists. (Leyshon et al. 2005, 189)

In “Time-Space ...”, Leyshon criticises the record industry for its complacency and assesses that it had only realised the threat the internet posed to its business model once it was cutting deep into the industry’s profit margins. He also predicts that the hierarchy, as represented by the record industry, would be replaced by a *hyperarchy*, meaning that traditional, capital-intensive industry structures will be undone by superior market co-ordination.

Although the term *hyperarchy* hasn’t caught on, he was right to think that superior market co-ordination would soon trump the status quo. By 2005, Leyshon deduces that the record industry is attempting to rectify their mistakes and learning how to harness the word-of-mouth superstructure that had toppled its monopoly.

The record industry-music industry synecdoche was encouraged by record executives at a time when they believed the record industry could continue posting record profits within its current business model. For example, Peter Jamieson, chair of the BPI used a keynote address

at the UK's 'In the City' industry convention in September 2003 to speak of 'The Music Industry Crisis', only to outline the issues facing the recording sector.

His counterparts in the Recording Industry Association of America (RIAA) made legislative efforts forcing through the Copyright Term Extension Act (1998) and the Digital Millennium Copyright Act (1998), to shore up their legal defences against online piracy.

The literature suggests that this association has been made between the record industry and the music industry - or just music in general - to imply that copyright circumvention is a boon to organised crime and is damaging music as an art form. It is a public relations tactic that echoes the issues around home taping in the 70s and that is also being used in the book publishing industry today, according to Williamson & Cloonan (2007, 306-7).

Sterne (2014) recognises the wide definition of music industry to be that of “record labels and the activities around them” like Williamson & Cloonan, although works by Frith (2000), Cvetkovski (2004) and Baym (2010) fail to make the distinction and continue to use the erroneous shorthand. For a number of decades, the record industry was the most profitable aspect of the music industry and the most common entry point for the public - live gigs were not as frequent or popular and pop music had yet to crossover as a staple into other media, such as television and film, to the degree it has now. Rogers (2013) cites this as an additional reason why the media and the public have yet to separate the idea of the recording industry from its more abstract parent.

2.2. Music networks and diversification into auxiliary industries

Rogers is one of many to recognise that, with the ebbing importance of physical recordings and the increased availability of music technology, the record industry and also the wider music industry are now predominantly rights-based concerns. As Leyshon notes : “The *raison d'etre* of record companies is to make profits by exploiting their ownership of property rights in sound recordings,” (2005, 63) highlighting their affinity with other capitalist industries in its exploitation of workers.

He adds that music has become omnipresent now that its proprietary, physical forms have faded into (increasing) irrelevance, and has become an increasingly important part of the capitalist infrastructure as a result.

Frith (2000) makes a more nuanced point on the separation of the music and recording industries. He defines the music industry against other media industries thus: where the music industry profits through controlling intellectual property rights, other media industries thrive through manufacturing. He further points to pirate radio, unlicensed clubs and raves, “bootlegs” and digital music services as sub-industries that depend on circumventing rights regimes.

He goes on to judge that “cultural studies people imagine music in terms of conflict and that music-as-culture has been turned into music-as-commodity.” (Frith 2000, 390) However, he does not buy into the notion of “music as conflict” – music that aspires to be a weapon of protest, transcending its default mode of consumerist product – and he does not give independent labels and distributors credit, saying they are just as bound to the global networks consumption as major labels are.

According to Frith, there is no David vs. Goliath conflict. Independent labels are complicit but have been made passive by the effects of globalisation in how national music networks are structured. They ostensibly profit off the network just as the major labels do, but they are largely irrelevant to the organisation of the music economy without any sizeable lobbying power or government influence. International media conglomerates have the most influence in shaping the market at the cost of input from national industries and retailers. (2000)

Sterne writes from a position of knowledge based on industry facts in 2014 that eluded many of his antecedents. He is critical of the intents and limits of copyright laws, as lobbied for by industry figures in the late 1990s and early 2000s. He argues that “only some kinds of originality count” towards the law, and that “we” as a culture allow originality to be settled as a matter of copyright and not aesthetics - “We can copyright melodies, lyrics and some timbres, but not rhythms” (Sterne 2014, 51).

He goes on to say the law is dependent on the notion of an artist who produces an “original” work, who can then hold the copyright for that work or “sell it to a holding company that will collect rent” and that “implied in this economic relationship is the notion of originality as the highest aesthetic ideal.” (ibid. 51)

This philosophical analysis of American copyright laws as they stand is recognisably post-digital. His focus is not on protecting the profitability of an antiquated business model but on assessing how worthy artists and subsequent rights holders are of collecting royalties on their work, based on subjective concepts of originality and aesthetic.

Recognising the futility in making laws that cater to such slippery definitions, he goes on to recognise the current law’s shortcomings in compensating instrument-, software- and hardware-makers, although these industries cannot be circumvented to the degree that the record industry has been, if at all, and do not have the problem of a rights-holding superstructure clinging to relevance.

Finally, as musicians continue to seek financial viability in their chosen career path, Sterne (2014) suggests that they lobby for a cut of profits from consumer electronics, computing, bandwidth industries and video-sharing sites (YouTube, Vimeo, etc.), industries that all profit through their capacity to host and sell musical experiences as well as second-life economies, such as eBay and Craigslist. This idea extends from the fact that the music industry earns money through accessorising other media - soundtracks, film, TV, video games - more so than it currently does through selling CDs, vinyl and MP3s.

Leyshon et al. also recognise the importance of “synergy and cross-promotion on the back of inserting music into other cultural artefacts”, agreeing that it can often be more successful than standard promotion for a record. (2005, 183-184) However, they also find evidence that music no longer satiates the teenage demographic as it did before the internet came to dominance. They believe that “other, newer, media and consumer electronics industries have begun to compete for this market segment, so that the amount of money young people have to spend on music has been reduced accordingly.” (2005 184) However, they fail to recognise

that the money being spent by teenagers on other media is the money they would probably spend on music if there were still an insurmountable paywall in place.

Kretschmer, Klimis and Wallis's (2001) empirical study of music in electronic markets found impenetrable barriers to the music market. These include the complex, capital-intensive logistics of ever-changing, international distribution networks, the high marketing costs, and the businesses' inherently risky market in which 10 per cent of the artists account for 90 per cent of the turnover.

They also break down the record industry's strategic intent, in the process suggesting that the industry always knew the old business model would fail sooner rather than later. Regardless, industry figures refused to willingly trade in a market that so brutally cannibalised their old one, indicating that they would "follow demand and not be in proactive in migrating their business online." (ibid. 426)

2.3. Imagining the future music industry

Kretschmer et al. (2001) also agree that the industry defended its market share through assertion of its proprietary control over content, pursuing technological means of assertion and co-opting the threatening parties such as ISPs and network operators while they developed their procedural competence in the new technologies.

Cvetkovski's 2004 study of the political economy (of music) suggests that there has been a democratisation of the means of production and reproduction make it easier than ever to circumvent the industry's rights: "current digital production, reproduction and downloading technologies are relatively cheap and readily accessible thereby facilitating unauthorized use of copyrighted music." (15)

However, he also predicts the increased bargaining strength of artists and indie labels because of affordable music technologies. They become less dependent on major companies to fund and distribute their works for the same reasons that the consumer can altogether avoid purchasing music for traditional/legal means.

Parry et al, writing in 2014, chastise the industry for not adapting to the digital economy as quickly as other media industries. The implication being that by not embracing the possibilities sooner, the record industry compounded their losses and made the transition far more arduous than it should have been. Leyshon et al. (2005), however, believe that nationalist geo-political systems that come into conflict with every online music purchase have been instrumental in slowing major labels' reaction to technological changes.

2.4. Artist vs. Industry attitudes

Parry et al took ten empirical papers into account when quantifying the relationship between file sharing and sales; the papers base their respective methodologies on aggregated data, consumer survey data and consumer transaction data. Of the ten, six suggest file sharing damages sales, three find no significant relationship between the two and only one found a positive relationship, unsurprisingly.

Even in 2010, the antagonism between labels and artists is still prevalent, according to Nancy K. Baym in "Rethinking the Music Industry". She cites OK GO and Nine Inch Nails, who, respectively, wanted to allow fans to embed their videos and remix their songs. In the latter case, NIN's label sued fans for following the band's wishes. This shows a disconnect between the artists who have grown to embrace the internet and their own labels who remain litigious about their copyright.

She also writes of the many professions that have sprung up in the 2000s and the prevalence of streaming sites like last.fm, Spotify and Pandora. The streaming, metadata and social media management/promotion sectors are just a few examples of professions that didn't exist ten years ago and show how the music industry has finally begun to reconfigure itself in light of the digital age.

In "The music industry: Believing in streaming", a 2014 *Economist* article, it is stated that only 4-5% of music consumers in Britain and America have signed up for subscription streaming services, however. Users pay upwards of \$120 per year for such services, and of them, Pandora has the highest value at \$7 billion with annual revenue of \$920.8 million, followed by Spotify, which is valued at \$5 billion with combined revenues of \$1 billion in

2012. Although both of these major companies are profitable and have tens of millions of subscribers, they are working within reduced expectations that the record industry refused to accept or at the turn of the century. The profits the record industry lost have not been earned anywhere else, and recorded music is no longer as lucrative as it once was.

Williamson & Cloonan found that sales of recorded music dropped nearly \$5 billion between 1999 and 2004, yet still made up 70 per cent of the music industry's profits at the time, while Cvetkovski estimated the cost of music piracy to have been around \$5 billion around the same time. Meanwhile, Baym found that industry had shrunk more than 40 per cent to its mid-1980s size but partly negates the impact of this statistic in saying that "this was not small in the 1980s, and it is not small now." (2007, 117)

As far as generic representations of new industry models go, there are few, but Leyshon et al. praise dance as a genre that had defied the conventional workings of the record industry before the crash. Fans' primary avenue of consumption of dance music is clubbing as opposed to home listening. Producers are largely faceless and interchangeable, contradicting the celebrity economy of most pop music. Also, dance music "is produced through a highly distributed network of recording artists, many of them utilizing relatively cheap computer hardware and software," (2005, 185) defying conventional wisdom but latterly providing a sustainable model of success for the digital era.

2.5. Interactivity and the music industries

The internet has changed music production, distribution, promotion and consumption so much that all genres, outside of mainstream pop, have started to resemble dance music more closely in a business sense, but innovation need not end at reducing expenses. The product remains central but new technology has opened music up to new forms and perhaps definitions. Through interactivity artists are no longer limiting themselves to music as their sole output but are taking a greater interest in their creating and curating their wider multimedia output.

The commercial and reputational benefits of such endeavours have not been analysed, but there are a few studies into interactivity as a potential revenue stream. Most analyses are case

studies that primarily focus on the technical workings of interactive musical artefacts, and artists are reticent in disclosing the financial details of their projects.

Kretschmer, Klimis and Wallis delve into interactivity in as far as how the consumer interacts with their listening/purchasing interface, proposing four modes of interactivity: a) limited choice - centralised content, b) own-brand goods, c) DIY and d) a “give me your bond” model.

The first is contingent on a passive consumer with labels filtering an abundance of digitised content through a few media channels. Own-brand goods allow for a more active consumer interfacing directly with the labels, who have retained their artists’ intellectual property rights. The DIY model is highly interactive, with artists and consumers connecting without labels but through search engines and intelligent agents (in 2015, we would call it social media). DIY also theorises geographical and generic communities being built to aid in popularising new acts, which in turn would lower distribution and marketing costs.

Finally, the “give me your bond” model opens artists up to the stock market. New distribution formats and better copyright help decide the price of every song in real time, and artists intellectual property rights have become stocks to be traded at a time when the appetite for music is insatiable.

The current market takes elements from the limited choice centralised content and DIY models but fails to account for new models of consumption that are not dependent on purchasing new music (subscription streaming, YouTube, SoundCloud, blogs etc.) Of course, this is an advantage of hindsight, but it’s not difficult to imagine a world in which neoliberal democracies come to embrace intellectual property as stock market commodity, even if it is the most farfetched of the four.

As far as innovation by the industry is concerned, the now-defunct major label EMI have created an app for new artists called OpenEMI. Artists use the software to pitch their ideas to executives. According to Dean McCarthy of Birmingham City University, “If their idea is

accepted, the artist will help create the app alongside developers and with oversight from EMI, the artist's management and the artist himself.”

Thus far, I have only considered literature on the topic of interactivity in music with regard to its sourcing, monetisation and consumption, but this thesis will primarily consider interactive music as an artistic and commercial concept. Interactive music is different to standard recorded music but there are variations within it. There are degrees of interactivity for a musical interactive artefact to adhere to and different or multiple formats in which it could manifest. Also, one must consider how vital the interactive elements are to the music; was the experience created alongside the music and is there clear interdependence or was it made independently by a second party with no creative input from the musicians?

As an ideal, interactive music should make the listener an active participant in the performance/playback and incorporate digital media and visual stimuli that speak to or illuminate lyrical or musical themes.

One of the more famous examples of interactive music is Björk's hybrid app-album *Biophilia*, which was in formulation but in need of an interface/distributor before the iPad hit the market, according to Björk collaborator Scott Snibbe. "We made the prototypes, and tried talking to Sony to get a video-game distribution deal, but all that stuff fell through at the time." (Dredge 2011)

Although critics of *Biophilia* posited that fans would listen to the music and ignore the app's expansive features, it has been praised for its creativity and educational elements. Every song on *Biophilia* has a pedagogical underpinning and an elucidatory theme of nature runs throughout. (ibid.)

Discussion surrounding *Biophilia* has largely surrounded its artistic merit and its potential to influence musicians embracing interactivity, but little pertaining to its financial merits. This would likely be unimportant to an avant-garde artist such as Björk.⁴⁵⁶

⁴ *Biophilia* garnered near-universally positive reviews (Metacritic average: 79/100; date accessed: 15 May 2015).

Beck's idea of interactivity is radically opposed to Björk's and is based in a business model that flourished prior to World War II and new, affordable listening technologies. His 2012 album/book *Song Reader*, consists of 20 songs written in sheet music. It's highly interactive and interpretive in that every listening is different and entirely dependent on how the listener performs the music, and thus the listener could be regarded as a co-creator or featured performer, but has no digital media elements whatsoever. Home music was the primary method of consumption for the average household. In a piece for the *New Yorker*, Beck wrote that half of America once bought Bing Crosby sheet music, and that modern music relies much more now on style, hooks, production techniques and celebrity than it did in the early 20th century, leading to the *Song Reader*.

Samantha Bickham agrees that *Song Reader* is an act of nostalgia. "In a time where the act of releasing music is becoming more and more disembodied due to digital media, interactive musical releases ... are in part a reactionary statement to the lack of physicality present in much of popular music."

The fact is that the most innovative releases have been conducted by legacy artists such as Beck and Björk, who have transitioned into a commercially irrelevant period of their careers with no need to build their wealth. This is also a criticism thrown at artists such as Radiohead who have experimented with new, consumer-friendly release and distribution methods.

⁵ *Biophilia* became the first app to be put on display at the Museum of Modern Art, preceding an entire Björk retrospective at MoMA in 2015.

⁶ Björk incorporated musicological analysis from the University of Sheffield to overcome challenges in building the app.

3. Methodology

Although the the music industry's shifting financial structure is a source of constant intrigue in the media, interactivity, as a potentially major source of revenue for the music industry, has been underexamined to this point.

3.1. Interactivity in previous studies

Interactivity, in the sense of facilitating consumer choice, was however tackled by Kretschmer, Klimis and Wallis from a theoretical standpoint in a 2001 study. They extrapolated four conflicting models of music consumption in the digital age, as mentioned in the literature review. They recognised that entry into the music business was becoming less capital-intensive and that artists as well as consumers would have more leverage in shaping of the market. Of the four models, two - "own-brand goods" and "DIY", which both imagine a streamlined artist-consumer relationship but are opposed on whether artists will widely own their intellectual property rights - most closely reflect the market's reality in 2015.

Naturally, a 14-year-old study of a dynamic, malleable political economy has its blind spots. Although there are some ideas that can be repurposed for contemporary times, said ideas are speculations as to how consumers will source their music in future, and the industry Kretschmer et al describe is not comparable to the industry of today.

3.2. Alternative release methods symptomatic of eroding industry structure

Release methods and internet streaming remain the main topics of interest in music news. Surprise online releases have become more prevalent in recent years as a byproduct of the legitimisation of digital downloads and the average user's increased comfort with the fluency of the internet. Where once Napster and other file-sharing sites were the scourge of the music industry and lawmakers worldwide, we now see major album releases by established artists being done through community sites. Thom Yorke's *Tomorrow's Modern Boxes* was released as a BitTorrent bundle in late 2014, while Drake's *If You're Reading This It's Too Late* was intended for free release on the popular online mixtape distribution platform DatPiff before Drake's record label, Cash Money Records, intervened. (DeVile 2015) It went on to sell over 500,000 copies in its first week of release, (Caulfield 2015) but the threat DatPiff poses to

traditional sales is indicative of the rap mainstream's comfort with the internet and its less rewarding economy.

3.3. Changing economy's effect on previous literature

The state of the music industry has become exceedingly difficult to define over the past fifteen years. Much of the literature written about its political economy has either become noticeably outdated or incomplete since its publication. Many of the new developments recorded above have been featured in media publications but have yet to be analysed and contextualised by academics.

Leyshon (2001 and 2005), Frith (2001), Cvetkovski (2004) and Kretschmer et al (2001) were responding to seismic changes both in methods of consumption and changes to law that were made to combat those same methods of consumption, and tried to make sense of an industry that had radically changed in a short span of time. Analysis was made on the basis of financial figures and projections, as well as in response to media reports that overstated the misfortune of the record industry. Part of that response manifested itself in renewed attempts to define the parameters of the record industry as well as other sub industries within the music industry.

3.4. Purpose of research paper

The purpose of this research paper is to examine the current state of the music industry as a political economy and to determine how interactivity (in audio and/or visual forms) may be incorporated by artists into future musical endeavours as well as by the industry as a standardised part of its marketing practices. Will interactivity in music remain the reserve of established artists on the border between mainstream and avant-garde or is there a commercial future beyond that? Will music-adjacent interactive experiences become the latest avenue of indirect profit generation for an industry in the midst of widespread diversification? This paper will attempt to answer those questions based on qualitative research, but extensive quantitative research is also required if they are to be answered with any certainty.

3.5. Implementations of interactivity in music

Having researched and used a number of interactive music projects, I have identified three implementations of interactivity in popular music. These three categories have been defined based on my experiences and observations in using interactive music projects, the amount of planning and effort I have judged to have gone into them, their execution and viability as interactive art, and the commercial agendas they serve, whether that's promoting the artists and their work or a third-party capitalist enterprise :

1) Bespoke interactive experiences created synonymously with musical projects, such as Björk's *Biophilia* (2011) and Arcade Fire's interactive videos for multiple songs from their most recent albums, *The Suburbs (The Wilderness Downtown 2010)* and *Reflektor (Just a Reflektor 2013)*.

2) Novel interactive experiences, primarily videos, made as promotional material or in deference to powerful media channels, such as Vania Heymann's *Like a Rolling Stone* video (Heymann 2013) and Death Grips' video collaboration with MTV, *GIF Me More Party*. (WeAre From LA 2012)

3) The interactive music video as embedded advertisement, hyperlinking to online retail sites or created with the intention of promoting other enterprises, the most prominent example of which is FK1, Diplo and Iggy Azalea's "shoppable" music video for 'I Think She Ready'. (Alex/2Tone 2012)

3.6. Interviewees and line of questioning

I intend to explore each of these three areas of interactivity in music, and my primary research will be conducted through interviews with the producers, directors and developers of the abovementioned implementations. Secondary interviews will be conducted with bodies that have commissioned music-related interactive projects.

Research questions will focus on the process of design and development behind their most notable works but most extensively about their experiences in collaboration with musicians and the music industry. The aim will be to ascertain the collective artistic and commercial

intentions at the outset of their creation as well as the opinions they have formed on the future of interactivity in music from their experiences in designing for music-related projects.

Secondary interviews will probe as to what the commissioning bodies have reaped from interactive music projects and their reasons for commissioning such projects and all interviews will be asked about their opinions on the future of interactivity within the music industry and its potential manifestations

3.7. Structure of analysis and expected conclusions

The aim is to gain a better understanding of the commercial benefits there are in facilitating collaborations between interactive artists and musicians from interviewees working in the music industry. If it is to be believed that the artists approach such collaborations with solely artistic intentions then it is left to those working in business capacities within the industry to highlight the quantitative advantages to these collaborations, as well as the intangible impact they may have on an artist's brand or their perception with audiences.

This research paper will be built around opinions of interactivity in music from different sectors of the music industry, internal and auxiliary, as well as my own analysis of the music industry as a political economy that shall be derived from recent statistics, testimony and literature.

This research paper also aims to delineate further types of music-based interactivity and reveal the many attitudes held towards it held by wider industry. It will also examine any other potential stimulants for musicians and interactive artists to collaborate beyond the three I have identified here. That will augment my research and provide insight as to how committed entrenched artists and industry bodies are to innovation at a time of continuing uncertainty.

4. Analysis

An article in a March 2015 edition of the *Guardian* sub-titled “interactive videos are a ruse, not a revolution” hit upon the objectionable commercialism of ‘shoppable’ music videos⁷ and called minor innovations out for their unsustainable novelty (Oliver 2015). The commentary, although somewhat snide and keen to dismiss the medium as a “gimmick”, (ibid.) hit upon the sense of skeptical unease that has greeted gradual rise of the interactive music video, a sense that can be distilled into one question:

What do interactive music videos offer that non-interactive music videos do not?

4.1. Types of music applications

As it stands, interactive music videos, although far from standardised, are the most visible manifestation of explicit digital media interactivity within the music industry. However, there are other forms of interactivity on the market. App usage has exponentially increased with the advent of smartphones and tablets.⁸ Outside of music consumption applications (Spotify, Pandora etc.) and further to the three types of interactive music projects as defined in the methodology, there are at least two types of music applications that have been released in recent years:

- 1) apps created by artists as an extension of or visual companion to their recorded musical output (Björk’s *Biophilia*) that also uses interactivity to promote their conventional releases - Mew’s *Sensory Spaces* (2013) and *AmEx Unstaged - Taylor Swift* (2014).
- 2) apps created within the music industry or adjacent to the music industry either aiming to a) encourage the public to record covers or their own material as part of a talent search or to empower them to sell their work outside the industry apparatus, or b) to facilitate interaction and collaboration between users; again, either as part of a talent

⁷ Music videos that heavily feature consumer products that double as clickable hyperlinks, diverting the user to sites where such items can be purchased.

⁸ The number of people using apps worldwide has increased from 400 million (2007) to 1.9 billion (2015). (smartinsights.com; date accessed: 15 May 2015.)

search or to encourage musicians to work outside conventional industry channels. Examples include home recording applications such as bBooth and WholeWorldBand.

Although both types are assuredly interactive, the former is largely self contained while the latter is reliant on the user incorporating or uploading external elements. In the cases of bBooth and WholeWorldBand, user satisfaction is dependent on their musical talent and networking or collaborative abilities, rather than the user's mastery of the app's controls.

The first definition also can fit within the confines of all three definitions (bespoke, novel and embedded advertisement). For instance, *Biophilia* is the archetypal bespoke interactive music project, while *Sensory Spaces* and *AmEx Unstaged - Taylor Swift* both snugly fit the novel definition, as they promote their respective artists' recent musical releases. However, *AmEx Unstaged* is also an embedded advertisement for American Express and *Sensory Spaces* is a "premium listening experience" that came as the result of extensive collaboration between New and the Scandinavian company Bang + Olufsen, (PR Newswire 2013) so it could also be judged as bespoke.

The second definition of a music app falls outside the three definitions for implementations of interactivity in music. It does not promote or act as complementary extension to a musician's work, but empowers the user to create their own work and have it heard by potential fans and industry insiders. It deviates from the template set in the methodology by treating the user as a creator/musician rather than as a fan/consumer.

4.2. Cultural penetration of music-related interactive objects

\$46.5 billion was spent globally on PC and console games in 2014 (Statista 2015) and it is estimated that a combined \$112 billion will be spent on gaming software, gaming hardware and online gaming in 2015. (ibid.) The gaming industry's enduring popularity and impressive financial health prove that gaming remains the most popular form of interactivity in western culture, and interactivity is behind in terms of profitability, scope, verisimilitude and immersiveness.

Biophilia remains the only music app to have pierced the popular consciousness, so although far from ubiquitous, interactive music videos remain the most prevalent example of interactivity in music. Not all experiments are conducted with a specific goal in mind, and considering its presently minor role and ambiguous future as a promotional tool within the music industry, the interactive music video is no exception. It is not the first attempt at incorporating interactivity into music consumption since the advent of home computing.

4.3. CD-ROMs and early examples of interactivity in music

Peter Gabriel's *Xplora1*, *Prince Interactive* and *Jump: the Interactive David Bowie CD-ROM* were released in 1993-4. The former two functioned as interactive musical computer games for Macintosh while the latter was released as a belated companion piece to Bowie's 1993 album, *Black Tie White Noise*. All three artists were established, famed for their innovation and massively influential, but their cultural footprints were shrinking at this point in their respective careers. Bowie admitted in an interview with the *New York Times* that he and longtime collaborator Brian Eno no longer "feel a part of what's going on" and that the pair felt "distanced from everything." (Strauss 1994) Having graduated beyond the capricious pop charts, the trio were allowed to break from convention with the full backing of a booming music industry. These early efforts by mainstream artists to incorporate interactivity into their music had their moments, but didn't advance the state of multimedia as mainstream concept - the most interesting innovations were being made on the fringes. (Potts 1995)

4.4. False dawn for interactivity in music

In that same interview, Bowie speaks excitedly of the potential of interactive multimedia and its primary contemporary manifestation, the CD-ROM. (Strauss 1994) The future of interactive multimedia was far from ensured or easily predictable, however. Matt Black of electronic duo Coldcut and co-founder of multimedia production company Hex told the *Observer* that he was "convinced the interactive music video thing will be massive in a couple of years" having released a range of , CD-ROMs and a visual album for the Philips CDi format. (McClellan 1994)

4.5. Interactive music industry crash

That same year, the “innovative multimedia firm” (Rodgers 1994) Next Technology, a leading pioneer in CD-ROM and CDi technology, entered receivership before being saved by Virgin Interactive Entertainment (VIE), a subsidiary of Blockbuster Video. The company had turned a profit of £100,000 in 1993 but the postponement of several major projects led to a loss of £90,000 the next year and the threat of a winding up order before VIE intervened. (ibid.)

4.6. Interactive music videos in the early- to mid-2000s

It wasn't until the new millennium that mainstream music began to flirt with interactivity again with the first ‘webeos’ (web videos), an early form of interactive music video facilitated by wider web usage and faster internet connections. Posted on BET.com and 360HipHop.com, ‘Six Feet Underground’ could be considered hip-hop’s first interactive music video. It has some game-like features: the user has to make choices to advance the narrative and defeat opponents with their weapons, and the avatar had been created in the image of the rapper Ja Rule, whose song gives the video its name and soundtrack. (Marriott 2001)

By 2006, Beck had released a host of interactive music videos as part of the deluxe edition of *Guero* (Meyer 2005) and Rihanna had collaborated with the sportswear giant Nike on a promotional interactive workout video for her song ‘SOS’. (Market Wire 2006) It wasn't until 2007 and the release of the video for Arcade Fire’s ‘Neon Bible’ that the media took notice of the medium with any regularity. The video, directed and developed by Vincent Morisset has been recognised as the first interactive music video by multiple publications since then and Morisset’s own website. (The Creator’s Project 2013)(Morrow 2013)

4.7. Vincent Morisset and Arcade Fire⁹

Vincent’s Morisset’s relationship with Arcade Fire predates the ‘Neon Bible’ video, although that was the first interactive project he worked on for them. He has worked with the band in various capacities since their 2004 debut, *Funeral*, and he has since made interactive videos for ‘Sprawl II (Mountains Beyond Mountains)’ (2012) and ‘Reflektor’ (2013).

⁹ Unless otherwise stated, all quotes in this section are taken from a personal interview with Vincent Morisset conducted via Skype on 27 April 2015.

4.7.1. Budgets and economic viability

The medium of interactive video, fledgling in 2007, has changed considerably between ‘Neon Bible’ and ‘Reflektor’. A standard music video would have cost \$200,000 in 2007, according to Morisset, while *The Neon Bible* cost a mere \$15,000 to produce. (Black 2007) *The Neon Bible* was a cost-saving innovation at the time, whereas *Just a Reflektor* required sponsorship and assistance from multinational web giant Google to be fully realised.¹⁰

Demand for Morisset’s services has increased¹¹ because of his work with Arcade Fire, a critically and commercially successful band with full control over their creative output, but resources and financing remain a key factor in the slow process of standardisation for interactive music videos. The projects Morisset has done for Arcade Fire are designed to attract attention; they are a promotional tool much as standard music videos are, but the music video industry outside of major label artists has dramatically fallen off in recent years. “The budget is either for free or for \$3,000,” according to Morisset, so there is no commercial or economic viability to promotional materials and specifically interactive videos for smaller artists without brand attachment.

4.7.2. Making music indisposable again

Beyond their obvious promotional capacity, Morisset imagines his works as a visual companion to the song or album in question. He highlights the modern consumer’s disposable relationship with music as a reason for greater interactivity across the industry:

*“With phones, we’ve slowly lost the artwork companion. You’ll listen to an album on a phone, and what you’ll have is this tiny, [sh***y] egg and that’s it, that’s the visual that you’ll have with an album.”*

Technological developments have changed not only the listening apparatus but the manner in which people listen music in 2015.

¹⁰ Using Google’s Chrome Experiments’ WebGL software for HTML5 and multiple programming language (Chrome Experiments - Just a Reflektor; date accessed: 15 May 2015.).

¹¹ Morisset would not reveal any musicians or bands that have approach him about potential work.

Morisset recalls that in his youth he used to buy CDs and vinyl records, and that the cover art and liner notes would act as a visual companion. He, in turn sees his work as a “replacement” for this, and “a Trojan Horse to reach out to people”, so beyond its promotional aspect, the interactive music video is novel enough to engage the listener/user on a deeper, more focussed level. The secondary intention is to raise the music above ‘background noise’ .

4.7.3. Democratisation of the tools and streamlining of industry apparatus

The “democratisation of the tools” and the non-existent funding for interactive projects of this nature have created a ‘friendship economy’ of sorts that guarantees no payment and ensures that sometimes work is undertaken on the basis of pre-existing goodwill and personal relationships.

“The middleman of the production company [representing] music directors, and their labels approaching production companies that hires the director is something that ... we still see it. I see more and more direct contact between artists and directors.

The whole aspect of the commercial structure is becoming less and less relevant since there is no money or industry around it - there’s nothing. Just because of that aspect, the whole ecosystem has changed.”

The music video production apparatus and the general relationship between musician and music video director has been streamlined, in Morisset’s experience as a result of lacking investment. However, his experience is largely exclusive to his relationship with Arcade Fire, a popular, established band with full control over the creative output and visual branding. Morisset admits that “in other cases, labels or managers can be more directive.” The level of autonomy Arcade Fire enjoy is “special to them”, and as a result there is also little to no record label, management or other music industry-related interference.

4.7.4. Definition of Morisset's work

Morisset's work with Arcade Fire most closely subscribes to my first category of interactivity in music as a collection of bespoke interactive experience in which both musical and interactive artists have extensive input and share creative control. Although admittedly intended for purposes of promoting the band and their work, there is an artistic, innovative impulse underpinning their existence.

4.7.5. Gradual expansion of Morisset's role with Arcade Fire

It must also be said that Morisset has given Arcade Fire a visual identity beyond his interactive music video. In his time working with the band, he has created stage shows, designed album covers, built websites and made documentaries for the band. His relationship with the band stretches beyond that of a standard musician and video director, again speaking to concept of 'bespoke interactivity' that I introduced in the methodology. The amount of work he has done in crafting Arcade Fire's visual identity and branding characterises Morisset as a person of utmost importance in connecting the band with their audience. One could characterise him as the band's artistic director of sorts, and his videos are just one aspect of the work Morisset does in facilitating interaction between the band and the public at large.

Morisset makes clear that Arcade Fire hire him on a per-project basis, so this all-encompassing role as director of the band's visual output is a more of a loose, informal agreement. It is an uncommon alliance, and the work of sleeve design, documentary filmmaking, video directing and touring visuals are split between artists. Control is not usually handed over to one person, and such lasting collaboration is uncommon.

Arcade Fire have had the creative control to maintain their collaboration with Morisset over the course of their career and gradually increase his role in their enterprise. According to him, he distilled their ideas and intuitions into a web presence for the band without any interference from outside parties.

4.7.6. Interactive music video as directorial internship

Another factor in the longevity of Morisset's working relationship with Arcade Fire and the artistic freedom he enjoys is money. He recognises that the interactive video remains exclusive to bigger artists who can afford it and who have leverage over their industry superiors to impose their will on the direction of their musical and non-musical output.

Ultimately, if interactive music videos are to take on a standardised role in promoting music and musicians, then investment and infrastructure are essential. Morisset notes that "you can shoot with your cellphone or a decent reflex camera" and that while only one talented developer is required for interactivity, developers are in-demand in other fields. Unless young directors feel taking on such work is guaranteed to bolster their portfolio or they do it out of passion for the project, the interactive music videos will remain the preserve of long-established artists with the leverage and resources to defy industry norms.

4.8. Interactive music videos in the late-2000s

Excluding Arcade Fire's inventory of interactive videos, which include Chris Milk's Google Maps-assisted *The Wilderness Downtown* (2010)¹² in addition to three made by Morisset, there are only a limited number of interactive music videos that punctured the popular consciousness.

The open source video for Radiohead's 'House of Cards' (2008) requires the most user interaction of the batch. Shot using Lidar technology¹³ and without a camera, its code was made freely available online as CSV and processing code for users to manipulate and augment. (Chacksfield 2008) Other attempts include the videos for Cold War Kids' 'I've Seen Enough' (2008), Black Moth Super Rainbow's 'Dark Bubbles' (2009) and MGMT's 'Electric Feel' (2008). (Softronic 2010)

¹² Another video made in conjunction with Chrome Experiments.

¹³ The National Oceanic and Atmospheric Administration (US) defines Light Detection and Radar (Lidar) as a remote sensing method used to examine the surface of the Earth. Laser pulses are used to measure variable distances to the Earth. In conjunction with previously recorded data, they can generate precise, three-dimensional information about the shape of the Earth and its surface characteristics. (oceanservice.noaa.gov; date-accessed: 15 May 2015)

4.9. *Biophilia* as breakthrough for interactivity in music¹⁴

In terms of media attention and breadth and sophistication, the above videos were overshadowed by Björk's *Biophilia* application for iOS devices. Released in 2011, and designed by Björk in collaboration with acclaimed interactive media artist Scott Snibbe, the app was designed to compliment the album of the same name and explore its lyrical themes through interactive gameplay and augmentation of the album's ten songs, for each of which there is a self-contained mini app.

4.9.1. Initial problems of formatting and distribution

Despite the plaudits it accrued upon release, the process of bringing *Biophilia* to fruition was fraught with problems. As stated in the literature review, it wasn't until the Apple released their first iPad that Björk was assured of how she could physically present the ideas she had for the project. According to Snibbe, "she was already using touchscreen instruments to compose and record, as well as some custom-designed devices using gestures and even console controllers" before the iPad came out, but distribution had also been a major worry to that point. (Dredge 2011)

4.9.2. Hype and acclaim in place of sales

No sales figures have been released, but despite some worries that users may ignore the app entirely and instead exclusively *listen to Biophilia*, (Dredge 2011) both album and app received positive reviews.^{15 16 17} Since producing the app, Scott Snibbe claims to have received many offers from other musicians hoping to make their own exhaustive interactive applications. As an experienced and revered interactive media artist, he would be readily employable, but the name recognition that came with *Biophilia* has made him a desirable potential collaborator for musicians wanting to make a turn into this area.

¹⁴ Unless otherwise stated, all quotes in the section are taken from a personal interview with Scott Snibbe conducted via email on 7th May 2015.

¹⁵ As stated earlier, Metacritic aggregation: 79/100

¹⁶ Google Play user review average: 4.5/5

¹⁷ App Store user review average: 4/5

4.9.3. Pluralising interactivity

For the time being, Snibbe believes that interactive applications will remain the reserve of “innovators”, specifically established artists with the freedom, budget and inclination to expand into other artistic medium. However, the standardisation and commercialisation of interactivity in music is never far from his mind. It is contingent on somebody inventing “a proper format and distribution channel for the interactive music video.”

Snibbe is currently attempting to do just that with his Eyegroove app for iOS. The app encourages users to create short videos and then layer them with interactive effects. (CrunchBase 2015) The ultimate aim of Eyegroove is to make interactive videos mainstream in the way that YouTube normalised uploading video to the internet, a process Snibbe believes will be complete in the next “five to ten years”.

4.9.4. Interactivity as defined by Scott Snibbe

As far as interactivity with regards to music, Snibbe has a broader definition than most, and it encompasses the myriad changes in music consumption facilitated by the internet in the past 15 years:

“Music first became interactive by allowing one to choose whatever song one wants at any time, with digital libraries and streaming services. Today there’s a kind of guerilla activity making music interactive with handmade “fan” music videos and cover videos, which are sort of illegal to make, but not quite. These made almost a billion dollars via YouTube for artists and labels over the past two years, so the commercial future is here.”

4.9.5. Building an interactive music video industry

In suggesting what the commercial future of interactivity in music may look like, Snibbe separates the act of profiting from music from the very idea of the music industry. An impressive amount of money has been made by fans and artists working outside the music industry and sometimes in opposition to the copyright laws that industry has fought so hard to

tighten up. Snibbe is relying on this exact audience to spend that same amount of time and effort on interactive music projects using Eyegroove.

His app was made on the basis that there is little to no industry support in interactive music videos and apps, but also takes heed of the fact that the tools needed to contribute to the medium can and are available to the wider population. He admits that “highly produced interactive music apps like *Biophilia* still cost more than they earn, so are a kind of a special art project.” The future does not lie in expensive, all-encompassing projects of this kind but in aggregating the work of the public, who are not unskilled but require assistive technology and tutelage in order for the pluralist potential of interactivity in music to be realised.

Snibbe is counting on the music industry to reject interactivity and interactive music videos as a primary method of interfacing with potential audiences and existing fanbases. He is also hoping that music fans continue to digitally interact of their own accord, creating videos and projects without the impetus of their favourite artists’ interactive videos and apps. He is wholeheartedly buying into the notion that interactivity cannot and will not be contained within musician and industry-sanctioned projects and that the “democratisation of tools” (Morisset 2015) will continue to inspire the public to contribute to medium. User interactivity as mandated by the internet is not a novelty but the new status quo, and larger parts of the worldwide audience will continue to choose to be active participants rather than passive consumers. In any case, Snibbe finds it “hard [to] imagine” interactive videos, apps or something completely new becoming the primary promotional tool of the music industry.

4.10. Novel interactive music videos and embedded advertisements

In the wake of Morisset and Snibbe’s combined efforts, there has been a noticeable increase in the amount of interactive music videos being made by high-profile artists. However, while I would judge Morisset and Snibbe’s works to be ‘bespoke interactive experiences’, the new wave of interactive music videos that have been made since are largely either ‘novel interactive experiences’ or ‘embedded advertisements’.

The Vania Heymann-directed clip for Bob Dylan’s ‘Like a Rolling Stone’ (2013) was commissioned solely to promote the latest, exhaustive Dylan retrospective, *Bob Dylan: The*

Complete Album Collection Vol. One. It consists of multiple videos being played simultaneously, the user is then supposed to flick between them as if they are channel surfing while watching television, and it is indeed presented in such a manner. (Heymann 2013) The video for Jack White's 'That Black Bat Licorice' (2015) follows the same principles with a limited amount of user interactivity and three videos to toggle between - a standard video, an animated video and a 'headbanging'¹⁸ video, while Azealia Banks' clip for 'Wallace' depends on the user moving in front of their webcam, Banks will then face in whichever the direction the user settles in. (Ace & Soucy 2015)

All three videos could be written off as gimmicks and may fail to engage beyond their initial novelty factor. As such, they are 'novel interactive videos', made with the intention of promoting the musicians latest recorded single or album. The 'embedded advertisement' has also risen to some kind of prominence in recent years. In addition to promoting the musician and the interactive filmmaker, however, they also promote a third-party capitalist enterprise, which usually provides the video's budget in exchange for such valuable product placement and increased brand awareness.

4.11. 'Shoppable' music videos¹⁹

Shoppable videos are prime examples of interactive music video as embedded advertisement for a second party, ie a capitalist enterprise. The video not only promotes the song and the contributing artists but consumer products with no tangible connection to either apart from the video they share. However, shoppable videos are low, one-way forms of interactivity. The user cannot alter or augment the video in any way; their interaction solely permits them to navigate away from the webpage housing the video to a predetermined location, in this case encouraging the user to browse and purchase advertised items.

4.11.1. SSENSE: the main purveyor of 'shoppable' videos

Alex Erdmann directed the video for the FK1, Diplo and Iggy Azalea song 'I Think She Ready' (2012), which has been noted as one of the first 'shoppable' music videos in existence

¹⁸ The video consists of fans headbanging in slow motion in a driveway as the song plays.

¹⁹ Unless otherwise stated, all quotes in this section are taken from personal interviews conducted with Alex Erdmann (5th May 2015) and Gina DeYoung (12 May 2015) via email.

along with the video's for Devo's 'What We Do' (2011) and Sky Ferreira 'I Blame Myself' (2014). The latter, like 'I Think She Ready', was commissioned by the Canadian fashion outlet SSENSE and prominently features items sold on the SSENSE website with corresponding hyperlinks.

Erdmann himself had very little input on the programming side as the video's director. SSENSE pitched the interactive shopping idea directly to Azalea, and provided the video's budget in return. SSENSE demanded that certain items and "looks" were featured, but otherwise according to Erdmann, he was left alone to execute the video. SSENSE saw "significant spikes in traffic" on the day of release for both 'I Think She Ready' and 'I Blame Myself', according to SSENSE director of strategic planning Gina DeYoung. Ferreira's video had the added benefit of the SSENSE YouTube channel, which post-dates the 'I Think She Ready' video', through which the company was able to launch heavy promotional campaign prior to its release. (ibid.)

'I Think She Ready' is the only interactive Erdmann and his company, What You Steal, have produced. They have made standard videos for primarily underground artists such as the veteran noise rock band Liars and Detroit rapper Danny Brown. Under his pseudonym Alex 2Tone, Erdmann directed two more videos for Azalea. 'I Think She Ready' (2012), 'My World' (2011) and 'Murda Bizness' (2012)²⁰ all preceded Azalea's mainstream breakthrough. Azalea has continued to tie outside commercial interests into her videos, however. The video for her 2014 hit single 'Fancy' boasts no interactivity but extensively features Revolve Clothing with whom Azalea "partnered" for its production. (ibid.)

4.11.2. 'Shoppable' videos instead of traditional advertising campaigns

SSENSE has continued to partner with bands and musicians, making conventional videos with the likes of Hercules & Love Affair and Dev Hynes. DeYoung says that SSENSE's ongoing association with the music industry speaks to the notion of fashion being at the intersection of culture and music, and the company wanting to remain part of the larger cultural discussion. When asked about the choice between sponsoring interactive videos as

²⁰ According to Alex/2Tone's IMVDB videography (<http://imvdb.com/n/alex-2tone>; date accessed: 15 May 2015).

opposed to incorporating their chosen musicians into conventional advertising, DeYoung claims that SSENSE “wanted to focus on the collaborative aspect of the project” and “[work] with each artist to achieve a stylistic vision.”

4.11.3. Analysis of SSENSE’s chosen artists

Aside from Azalea, who became a mainstream success two years after working with SSENSE, none of the artists that SSENSE have chosen to collaborate with have attained widespread commercial recognition. Neither Ferreira, Hercules & Love Affair, Arca or Chromeo have had an album or single chart highly in the US despite their continued critical acclaim.²¹ They are all niche, ‘indie’ artists with dedicated online fandoms and fitful blogosphere buzz.²² DeYoung chose not to answer my question on how SSENSE selected their chosen collaborators, but I would argue that SSENSE wants to cultivate an alternative image and set itself apart from typical high street clothing retail outlets, and using similarly atypical musicians to do so.

Budget as always plays an integral role in SSENSE’s decision making process. Although the price of an interactive music video can “range significantly”, it can start as low as \$10,000 in DeYoung’s experience, highlighting a clear financial benefit to a continuous endorsement or advertising campaign.

4.11.4. Apathy and excitement for the future of ‘shoppable’ videos

Erdmann appears content to continue directing standard music videos and is uninterested in the existence of interactive music videos generally, although he has continued working within the music industry in tandem with his responsibilities as design director for the Born x Raised brand. (He 2013) He says ‘I Think She Ready’ is the only interactive video he has done, the only interactive music video he has seen and that he has not experienced any increased demand for interactive projects since. DeYoung, however, believes that the ‘I Think She

²¹ Of the combined discography of these selected artists, Chromeo’s *White Women* is the highest-charting album in the US (#11, 2014), and it’s a sharp drop-off after that to Sky Ferreira’s *My Night, My Time* (#45, 2013). Additionally, none of their singles have charted on the Billboard 100, but they all fare better on the ‘Tastemakers Chart’, which ranks albums “based on an influential panel of indie stores and small regional chains.” (billboard.com; date accessed; 15 May 2015)

²² As of 15 May 2015, the average (mean) mark given to albums by Sky Ferreira, Arca, Hercules & Love Affair on leading alternative music website Pitchfork is 7.5.

Ready' video "opened the door" for more videos of this nature and expects to make more as well as to create "a more seamless experience" as the format takes on more strength.

4.11.5. The continued importance of corporate sponsorship

As Erdmann primarily works with new and niche acts and without the benefit of large budgets, the fact that he has and continues to work near-exclusively in non-interactive media is in line with the finding that interactivity in music is a field mostly dominated by long-established acts that are known to flirt with innovation and the avant-garde. Although the tools to create interactive works are more readily available than they have ever been, budget consistently remains an issue. While Vincent Morisset found they can be made relatively cheaply, it seems both the executives and creatives are reticent to experiment without third-party funding. Google's assistance was key in making Arcade Fire's *The Wilderness Downtown* and *Just a Reflektor*, just as SSENSE were the sole entity driving the interactivity in what is otherwise a fairly conventional pop video.

4.11.6. Visions of future interactive formats

Despite its limited role in his own work, however, Erdmann does envision a prominent future for interactivity, and especially 'shoppable' interactivity, at some point in the near future:

"I think it will all be interactive under one platform at some point. You'll just point your phone at what you're watching and buy it, be it video games or video or TV. Takes a while for all the technology to shake out with these things, I think it's still in its infancy. It will just need to streamline itself through trial and error."

As conventional music sales continue to fall, popular artists will seek to diversify their interests and find new ways of deriving profit from their work. Brands have been leveraging the celebrity and reach of pop stars for decades in a bid to expose their products to a wider audience and increase sales. (Pitta 1995, 51)

4.12. The increasing confluence of art and commerce

Interactive music videos are the latest medium through which commerce and art are interacting. In this instance, the medium is used to create technology-enabled advertising campaigns and endorsement deals, but it also decompartmentalises the relationship between one consumer product (music) and another (in SSENSE's case, clothing) and creates an inexorable bond between them in the mind of the viewer, using the musician/artists and their celebrity as a conduit.

The relationship is made even more fluid by the fact that all these forms of advertising have been streamlined into one output: the shoppable music video promotes the artist, the song and the brand in one go, and the hyperlinks reduce the degrees of separation between the entertainment and consumerism. The cratering exchange value of music in late-capitalism's digital age²³ has ensured that the music industry has to rely on its enduring popularity and its power as a status symbol in youth culture to diversify its profit base.

4.13. A more visual culture and industry acceptance of interactivity

Despite Morisset and Snibbe's contentions that the music industry has little to no interest in extending finance towards interactive video directors and developers, there have been some contrary developments as of late. Most tangentially perhaps is Beyoncé's self-titled 'visual album' (2013). Although it is not interactive, each song has a corresponding video. This may signal a shift in the culture, although *Beyoncé* remains unique for the time being. If one of the world's most enduring pop stars feels it worthwhile to make videos for 17 songs and her fanbase is willing to pay to watch them, there may be economic longevity in the medium after all.

4.13.1. Warner and Sony annex interactive production companies

More substantial, however, is the news that Interlude, the interactive media production company behind the 'Like a Rolling Stone' video, has signed a deal with the Warner Music Group (WMG) to make interactive videos for their roster of artists, having already made videos for Nicki Minaj, Coldplay, Damon Albarn and Wiz Khalifa. (Business Wire 2015) The deal was made in December 2012, just over two years since ROK made a deal with Sony

²³ The music industry's global revenue dropped from \$25.1 billion in 2002 to \$14.97 billion in 2014. (Music industry - global revenue 2014 - Statista; date accessed: 15 May 2015)

to create interactive music and video applications for iPad, iPhone and other smartphone devices. (ROK Global PLC 2013)

The language used by these major entertainment conglomerates when announcing their respective deals was effusive and keen to emphasise role innovation, the allure of mobile devices and the potential for greater fan engagement in making these deals a reality. Mel Lewinter, Exec. VP of Sony Music Entertainment said: “We are always looking for original and compelling ways for fans to experience our artists on mobile platforms.” (ibid.)

Two years later, Rob Wiesenthal, Chief Operating Officer at WMG followed suit, proclaiming: "Interlude's technology enables a level of seamless fan engagement that has never before been possible. This venture is both an interactive canvas for our artists and a new way for fans to share customized videos." (Business Wire 2015) WMG and Interlude are serious about making their shared venture a success having recently hired former Microsoft executive Nancy Tellum to anchor the project as Interlude's new CEO. (Barners 2015)

“Despite the enthusiasm that has greeted Morisset's interactive web offerings for bands, the music video industry has been slow to engage with what might be possible online.” (Creative Review 2010) In spite of this conservatism and the continued prevalence of standard music videos, these two deals prove that the music industry is willing to embrace interactivity as a way of engaging consumers and immersing them in their product even if, thus far, neither deal has produced anything that has permeated the public consciousness or entertainment media as effectively as *Biophilia* or any of Arcade Fire's interactive videos.

4.13.2. Expanding interactivity in media and among the public

Much like Snibbe's Eyegroove, Interlude also plan to market software that enables third-parties to make and upload their own interactive music videos, while also offering interactive interviews and live performances. (COL Accommodations 2014) On this basis, one may infer that the standardisation of interactive music videos is far from the endgame, but just one facet in the continuing evolution of media channels.

The music industry may, however, be irrelevant in selling interactivity to the public. There are numerous applications and technologies in circulation that will likely ensure the public's comfort with empowering interactive authorship without coercion and standardisation will begin from the bottom up if top-down coercion does not take hold soon.

4.13.3. The Future

Programmes such as Pocket Code allow users to create games and interactive videos and are being piloted in British schools as of 2015. (The Nottingham Post) Google Experiments' open source WebGL software was used to create Arcade Fire's *The Wilderness Downtown* and continues to provoke interest among amateurs and professionals alike, (Relaxnews 2011) with 250,000 people having contributed to Johnny Cash's 'Ain't No Grave' video. (Creative Review 2011) bBooth are installing professional recording booths in shopping centres across America for the purpose of proprietary recording sessions, the results of which can then be funnelled through the company's fledgling record label, management company and social media channels for \$20 a session. (Wireless News 2015)

Also lurking on the horizon is virtual reality and the persistent grip it holds on our cultural consciousness. Chris Milk, director of *The Wilderness Downtown*, is convinced of its potential for world-building and emotional manipulation, (Dredge 2015) and marketing director Kristin Zovich believes that "fans are beginning to respond." (Bruno 2009) However, the technology is still impractical and mainstream penetration is being restricted by the relatively low levels of webcam ownership and slow broadband speeds. (ibid.) With that said the market for webcams has increased from \$1.8 billion to \$3.2 billion in the last four years and the sharp rise of smartphone usage in the past eight years has since seen augmented reality revenue skyrocket from \$6 million in 2007 to \$320 million in 2014. (ibid).

Even if music-related interactivity as promoted by artists and industry bodies does not grip the public in the near future, it is almost certain that the general public will become so accustomed to interactive technologies and applications that the standardisation of interactive music videos and apps will become inevitable, even if by that point in time we will have taken it for granted as a feature of society in the digital age.

5. Conclusion

5.1. Findings

In the course of my research I have made several observations of interactivity as part of music and the music industry:

Artists generally believe there is no industry support for interactive music videos and apps, but in recent years major labels have begun to embrace interactive production companies with a view to securing the mobile market and encourage deeper fan engagement.

For now, large-scale bespoke interactive projects are largely exclusive to established, innovative or rich musicians, although the process of standardisation has begun and novel interactive projects may become the norm in due course,

Interactive music videos are generally cheaper to make than standard videos, but they are stigmatised by media commentators who feel they are a gimmick. (Oliver 2015)(Munday 2013)

There is a vacuum for an application that makes interactivity easy and formulaic for consumers waiting to be filled, but there is also a range of open source software (WebGL, Eyegroove) waiting to be exploited by talented people on a budget.

Developers are not content to incorporate passive consumers into using interactive music videos and apps, but are actively trying to facilitate recording and collaboration of new music and build careers through comprehensive technologies such as bBooth and WholeWorldBand.

5.2. Predictions

I believe that the music industry will strengthen its push for increased interactivity in the next five to ten years, provided that videos and apps made under the RKO-Sony and Interlude-WMG deals get traction on social media and attain widespread media attention. However, if such projects continue to be written off or derided as ephemeral, interactivity in music may wilt as it did in 1994.

However, I expect that interactive music videos will eventually become the norm as part of a wider societal embrace of the technology - a bottom-up evolution, rather than a forceful top-down revolution. If Sony and WMG are to succeed with their current strategies, users

may have to be engaged beyond the keyboard/mouse/webcam interactivity that constitutes the norm at present. Greater reliance on body movement, geo-localisation and other user data, creative participation and voice recognition could all be incorporated to empower potential users and give them a greater say in the narrative progression of the interactive music videos and apps.

6. Appendix

- Personal interviews conducted with Vincent Morisset, Scott Snibbe, Alex Erdmann and Gina DeYoung between Monday 27th April and Wednesday 13th May, 2015.
- Songs are referred to in single inverted commas ('Like a Rolling Stone'), but their corresponding videos are referred to in italics (*Like a Rolling Stone*).
- Word count, including title page, subtitles, footnotes and in-text citations: 13,291.

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