Music industry aspirants' attitudes to intellectual property in the digital age

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New technology has brought sweeping changes to how consumers listen to and buy music. Even as streaming sites based on subscription or advertising models gain ground, illegal file sharing and downloading continues to dominate media reports. The phenomenon is not as new as it may seem however. In fact, music industry organisations such as the International Federation of the Phonographic Industry (IFPI), the British Phonographic Institute (BPI) in the UK and the Recording Industry Association of America (RIAA) in the United States have always considered eradicating piracy as part of their remit. By the year 2000, the IFPI estimated that worldwide piracy had doubled to a value of \$4.2 billion, from just \$2.1 billion in 1995 (Hull, 2004: 10). Since that time, though, developments in technology have facilitated ever new ways of illegal copying and sharing of music. Industry organisations such as those mentioned have refocused their efforts towards legal initiatives against illegal music services, Internet Service Providers (ISPs) and even the music downloaders themselves. However, as Passman (2004: 400) has outlined, the efforts of the intellectual property rights-holders are often outrun by technological developments. Consumers continue to download and share illegally, seemingly unable to resist the lure of music for free.

The behaviour of consumers and the stance of the music industry present two opposing views based upon differences in identity and purpose. The music industry depends upon protection and exploitation of Intellectual Property (IP) for its continued existence, whilst consumers who can enjoy music for free seem merely concerned with their own enjoyment. Each side has vested interests which they protect and exploit through their actions.

It would appear then, that only these two extremes exist – either your behaviour reflects the views of the music industry or you exhibit behaviour reflective of the right to enjoy music for free. In reality however, there is a middle ground where behaviour and attitudes do not fall tidily into just one camp or the other. Though extensive research and media interest has concentrated on the two extremes, little research has been completed on the middle ground, hence the focus of this work.

This chapter looks at the background to the issues before exposing the middle ground by looking at the behaviour and attitudes of aspirants to the music industry. They are a good example of the middle ground because they are part consumers and part producers. As consumers they are exposed to the same influences and opportunities as the musiclistening public. However, partly being engaged in the world of music production, their success, particularly in economic terms, is tied up with the commercial operation of the music business. The pivotal questions are whether they act any differently to others and what are their reasons for acting the way they do. The examination takes the form of empirical findings from a group of Music Technology students spanning three years of study. This group have an affinity with the music industry and often study the subject to achieve their desired career goals. For example, their study of composition, production, recording technology and techniques, acoustics and the music business are all reflective of facets of practice in the music industry. The findings are discussed to see whether, for example, their aspirations make them behave in a manner which the music industry would applaud or whether they behave in the same way as their peers. Furthermore, if their behaviour is contradictory (thus placing them clearly in the middle ground), what are their reasons and what does this mean for future music services? The chapter closes with conclusions and further thoughts on the future implications of the findings.

The confusing picture of illegal music consumption and the music industry

There is general acceptance that new technologies are at least changing, if not damaging, the music industry in that they allow consumers to download or share music easily, unshackled by traditional modes of paid-for distribution. Evidence of the effects on the recording industry generally comes from two sources - the music industry itself (and its representative bodies), and independent researchers and commentators. Representing the industry internationally, the IFPI is possibly most significant as it represents 1400 record companies in 66 countries and affiliated industry associations in 45 countries. In its Digital Music Report (2011: 14), it points out that though digital revenues were up 1000% between 2004 and 2010, overall industry revenues were down 31%, and the report attributes this largely to illegal downloading and file sharing. In the UK, the BPI commissioned Harris Interactive to carry out qualitative research on the extent of consumers' access to pirated music as part of its 2010 Statistical Handbook. The results have been used by the BPI to argue the need for governments to take further action against piracy, in particular involving Internet Service Providers (ISPs). Much of the music industry represented by these organisations attributes the decline in the music industry to illegal downloading and file sharing. For this reason, efforts are now concentrated on lobbying governments to change laws so that ISPs bear more accountability for illicit use of their networks.

There are other views which have been shared by artists themselves, commentators and researchers. An example of one such extreme is found in the *The Future of Music* by David Kusek and Gerd Leonhard (2005). The premise of the book is that the music industry has over-hyped the damage caused by file-sharing, when in fact; the change in the technological and business environment presents huge opportunities for those who are nimble and smart. Kusek and Leonard (2005: 41) are quite categorical in stating that "[t]here is no direct proof that file-sharing itself is killing the overall music industry". The authors do, however, make a clear distinction between the record industry and the music industry, conceding that whilst the former may be dying, the latter is in rude health.

Several artists have also expressed views contrary to those of the music industry. Examples of these include Trent Reznor who, as well as admitting to illegal downloading himself encouraged fans attending a Nine

Inch Nails concert to do exactly the same (Moses, 2007). This is confusing to music consumers and fans as a recording artist is just as likely to suffer economic detriment as their record company through illegal downloading. A further challenge to the music industry's establishment was presented when Radiohead employed an 'honesty box' approach to selling In Rainbows in 2007. Fans could download the album for as much or as little as they were willing to pay. Thom Yorke, lead singer of the band made reference to the decision in Time magazine by stating "I like the people at our record company, but the time is at hand when you have to ask why anyone needs one. And, yes, it probably would give us some perverse pleasure to say 'F___ you' to this decaying business model" (in Tyrangiel, 2007). Such comments show not only an alternative way of doing business, but also a blatant voicing of disrespect to the established music industry. Though Radiohead's move gained considerable media interest at the time, it was not the first time the 'honesty box' strategy had been used to sell music. The artist Issa (formerly known as Jane Siberry) used the same approach in 2005 (Von Lohmann, 2005) though it received less mainstream media attention. There are, therefore, plenty of views from established sources which do not support the music industry's stance on illegal downloading and file sharing.

The study

To expose the middle ground, a survey was used to gather empirical material on the behaviour and attitudes of 75 Music Technology students, seen as aspirants to the music industry, and the same number of students on other courses in the same departments for comparison. To establish their relationship with the music industry, the Music Technology Students were asked whether they planned to work in the music industry, with the options of yes, no or not sure being available. The vast majority of the group (92%) have aspirations to work in the music industry. In the first year of their studies, all of the group aspire to work in the industry or are not sure rises slightly through the second year (at 13%) and in the third year (at 16%). This breakdown is useful in that as an overall sample, there is clearly a strong relationship with the music industry. However, the split enables some comparison to be made between

music industry aspirants and those who have different career plans or are unsure.

The survey questionnaire was divided into three sections namely; (i) demographic background (ii) music listening and consumption behaviours and (iii) further details on attitudes towards listening and consumption. Questions within (ii) produced quantitative results, whilst (iii) produced qualitative.

The results were then examined to establish the behaviour of music industry aspirants and to look for and explain expected, unexpected and contradictory behaviours. Outcomes were also compared with other sources of data and are discussed here.

Music listening habits

The groups were asked about their music listening habits in several ways. Firstly, they were asked how much of their time is spent listening to music, with five options ranging from "a lot (more than an hour a day)" through to "rarely or never". They were also asked how much of their music listening takes place on its own, with five options ranging from "always on its own" through to "always whilst doing something else".

The initial factor indicated in table 1 is that Music Technology group are avid listeners to music and listen more than their student peers. This may perhaps have been expected. However, students of other subjects can often feature music extensively in their leisure, and students in some subjects (such as Dance) need to use music as a complimentary art form to their chosen one. Out of the Music Technology group, 90% spend at least an hour each day listening to music. This compares to only 66% on other courses who listen to music for more than an hour each day. There is some evidence of a slight decrease over the three years of study for Music Technology group (from 90% to 85%) but this is not particularly significant. Students of other subjects are more likely to listen to music quite a lot (up to an hour a day), a fair amount, or not much. There is also some difference in how much music listening takes place on behalf of those who aspire to work in the music industry and those who do not or are unsure. Of the Music Technology group who either did not wish to work in the industry or were not sure, all of them listen to music for more than an hour a day. Therefore, the more marked amount of music

listening seems to be related to studying a Music Technology subject and not to being an aspirant to the industry.

Amount of time spent listening to music	Music Technology/music industry aspirants (%)	Others (%)
A lot (more than an hour per day)	90	66
Quite a lot (up to an hour a day)	6	12
A fair amount (sometime most days)	3	12
Not much (less than three days per	1	10
week) Rarely or never	0	0

Table 1: Amount of time spent listening to music

At this point, it is useful to consider how music is consumed and how new ways of experiencing music have shaped behaviour. Music performance was traditionally linked to its audience and the two existed in the same time and space - the musician could see who was listening. The advent of recording technology changed this and, as Eisenberg (2005: 13) states, music became a 'thing' to be acquired by the masses. Eisenberg (2005: 17) outlines the collection of cultural objects as typified by recordings as satisfying a number of needs in the consumer namely; "the need to make beauty and pleasure permanent ... the need to comprehend beauty ... the need to distinguish oneself as a consumer ... the need to belong ... the need to impress others or oneself". These themes hold true across the respondents in that they are seeking to satisfy these needs to a greater or lesser extent through their music experiences and consumption. The whole group are likely to share the need to comprehend beauty and the need to distinguish themselves as consumers. However, it is in the need to belong and the need to impress others or oneself where motives may diverge. Though each of the respondents would probably consider themselves to be individuals free to choose what music they consume, and how to behave generally, the reality is more complex. Each group is likely to exhibit some degree of collective behaviour or group mentality. This is because of shared experiences and goals - they have been through similar journeys before reaching their present point (education, hobbies and interests etc.), been purposely recruited or selected to follow a mode of study, and are together focussed on achieving the same end point. Given these factors, each group has an established culture which influences and sometimes imposes particular attitudes and behaviours. The reality is less

of individual choice than would initially be expected and more of a collective approach. Such a balance between individualism and collectivism is explored by Hofstede (1997: 57–67). Hofstede notes that individualist or collective behaviour can be observed in a variety of contexts from the family, education, occupations or the workplace. Furthermore, the degree to which a group is seen as a collective can be deduced from behaviours and attitudes. What is being seen here therefore is a different behaviour to satisfy the need to belong and the need to impress others or themselves is in relation to their immediate subject peers.

New developments in technology have also changed the manner in which music can be consumed and listened to. In particular, music has become increasingly ubiquitous and portable through the adoption of the compressed formats such as MP3, iPods, and other listening devices. Bull (2000: 55) in particular has written about the positive effects of MP3 player listening, including the way in which the listener can be enveloped in a personal music experience or use it as a means of preparing the listener for the day ahead. The act has moved beyond making a deliberate decision to listen to music in the home, as the consumer can now take the music with them, and never have to be without a chosen auditory accompaniment to their life. The figures for sales of devices demonstrate this shift quite clearly - for example, in the twelve months to September 2008, in the UK alone, more than 32 million MP3 playing devices were sold, compared with a mere 8 million CD playing devices (Green, 2005). The shift has therefore taken place from an active listening practice to one where it is likely to be accompanying other activities. This is a significant change in behaviour which has been mediated by emerging technology. Such a listening habit is referred to by Sloboda and O'Neill (2001: 416-418) as music without "focussed listening". In such an instance, the music is no longer the focus; it is a secondary sensory experience which accompanies other activities. This goes beyond being a different behaviour but towards a different perspective on the act of listening.

In terms of music listening related to other activities, as table 2 shows, amongst the Music Technology group, the emphasis is towards "half and half" listening (52% of sample), "sometimes on its own" (24% of sample) and always on its own (5% of sample). Compared to other respondents, music listening is more likely to take place as the primary activity. This points towards a greater perceived value of music-listening as an isolated activity as opposed to an accompaniment to other activities (Sloboda and

O'Neill's "focussed listening"). It may also point to the fact that aspirant music producers spend time listening to music analytically as a means of improving their knowledge of music and music production. Such an approach has been referred to by several authors including Izhaki (2008) and Moylan (2002: 89) who explains that "The recordist will not be listening passively, but will rather be actively engaged in seeking out information with each passing sound". Following this approach suggests a different approach to music listening and the placing of greater 'value' on the act of music listening.

Balance between music listening and other activities	Music Technology/music industry aspirants (%)	Others (%)
Always on its own	5	1
Sometimes on its own	24	4
Half and half	52	23
More often whilst doing something else	19	43
Always whilst doing something else	0	29

Table 2: Music listening mixed with other activities

It may be thought that placing a more significant 'value' on listening to music should mean the music is paid for. However, later results show that an activity can have a significant value in life but not be valued in economic terms. This presents a challenge to the music industry because value needs to be translated into economic terms for it to survive and prosper. This concept has also been evidenced elsewhere in UK Music/ University of Hertfordshire's Music Experience and Behaviour in Young People report (Bahanovich & Collopy, 2009). The report refers to "the disconnection between music's value and actual spending" (ibid.: 14). In the results, though 90% of respondents indicated music as an "essential item" (that is, of high value to them), it is only 23% of their monthly spend. This appears more significant when compared with spending on other leisure activities. In these activities (mobile telephones, film and sport), the figures for "essential item" and "monthly spend" are more closely aligned. The results here therefore reflect the same trend in that although the Music Technology group place a high 'value' on music listening this does not necessarily translate to them spending money on it.

The group of Music Technology aspirants are engaged in learning to become, and to a large extent are, producers of cultural goods, in this case, music. By comparison, other subjects, even though they may use music as part of their production of cultural goods (such as dance or film), are not actively involved in the production of music as a cultural good. This is an important distinction as it centres the group's culture on its role and purpose. Ultimately, their intention may be to produce for a mass market. However, in the meantime, they are not fully engaged in this purpose – much of their work is done for its own sake (to learn, to demonstrate, to examine) rather than to produce for a music-buying public. This is a crucial difference which is highlighted by Bourdieu (1993: 115) who points to a difference between producing goods for the field of large scale cultural production and the field of restricted production. Producing for the field of large scale cultural production involves the producer being subjected to the influences and pressures of commerce. The main considerations are to produce music which will be bought, and the producer and process are subject to the associated competitive forces. The field of restricted production is, however, the production of cultural goods for a public of producers of cultural goods. As Bourdieu (ibid.) explains, "the field of restricted production can be measured by its power to define its own criteria for the production and evaluation of its products". This is demonstrated here in that the music industry aspirant group have shared ways of going about their work, and shared ways of measuring its value. They are less influenced by external factors of economic, political or social differentiation which would affect them as producers of large scale cultural goods.

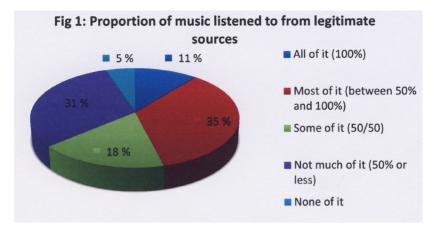
In terms of music listening habits, then, the Music Technology group/music industry aspirants are avid listeners to music, listening for longer each day than their peers of other subjects, and listen more critically. They place higher value on concentrated listening (not whilst doing something else), though this is not necessarily translated into paying for music. Much of this is collective behaviour related to their culture as producers for the field of restricted production.

Sources of music

The groups were asked about the sources of the music they listened to, specifically to highlight how much of it came from legitimate and how much from non-legitimate sources. The five choices available ranged from "all of it" legitimately-acquired through to "none of it" legitimately acquired.

As figure 1 shows, a low percentage (11%) of the Music Technology group listen exclusively to music which has been acquired legitimately. At the other extreme, 5% of the group listen to music of which none had been acquired legitimately. The vast majority have some sort of mixed collections - 35% listen to music which is "mostly legitimate", and 18% listen to music "some of which" is legitimate. Initially, this seems a confusing standpoint, as how does a consumer decide to pay for one music recording whilst enjoying another which is not paid for? What factors create such inconsistent behaviour? The answer lies in the fact that, despite the music industry's continual action to minimise piracy, there are plenty of social and economic influences and technological opportunities which can encourage music consumption without payment. The role of technology goes beyond being a facilitator – it actually challenges and undermines the very principles of behaviour which have been the norm. The dramatic effect of technology is highlighted by Théberge (1993: 41) when he states that "recent innovations in technology (a realm in which even science fiction would have difficulty keeping pace) have called into question the basic definitions of musical expression, authorship and use". Since this time, however, the technological changes have shifted from music production to music distribution and consumption. So, the technology no longer just effects the producers, it now changes the behaviour of consumers, encouraging them to hold the 'mixed collections' seen here, some paid for and some not. Similar results are seen in Bananovich and Collopy's report (2009: 20) which notes that young people still have a strong desire to own 'physical' forms of music even given the propensity of digital formats.

When the results are compared with data such as that produced by Harris Interactive for the BPI (2010), it is interesting that the Music Technology group appear as more enthusiastic users of illegitimate channels than the general populous. In the BPI survey, only 23% of music consumers were downloading and listening to music acquired illegally (BPI, 2010: 78). However, it should be noted that the Harris Interactive survey took place with 16–54 year olds (a wider age group than that examined here), and covered a much larger sample. Compared with this, the group of Music Technology students are younger, predominantly male and more technically-savvy. It could be anticipated that they are more likely to download illegally based on these factors alone. Looking

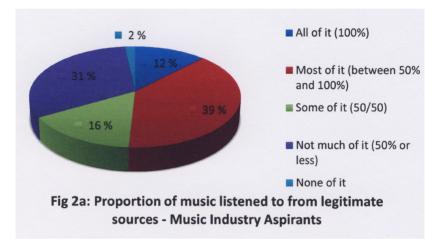


at the Harris Interactive data in more detail, methods of illegal music consumption are broken down by gender and age and mapped across to choice of method (P2P, newsgroups etc.). The results show a distinct bias towards illegal music consumption in the 16–24 age group, and towards male users rather than female, particularly with more specialist or technically-demanding methods (such as FTP). Given the fact that the Music Technology group better reflects this demographic, the difference seems less surprising. As another comparator, Bahanovich and Collopy (2009: 16) showed that 61% of 16–24 year olds illegally download music. The figures for the Music Technology group again looks somewhat high, but may be explained by the gender and technical-orientation of the sample.

The aptitude for technology which facilitates this behaviour is reflective of the principally technological drivers which have undermined the established music industry. Many observers associate these with illegal Peer to Peer (P2P) music file sharing services, the most famous of which is probably Napster. These services allow users to download music from servers or other people's computers without having to make any payment. They are purposefully designed to circumvent and disrupt traditional models of distribution and payment. In terms of cause, the music industry probably thinks of these services as enemy number one, followed by ISPs, then consumers who download and file share. In 2011, the RIAA pursued damages against one such service, Limewire for \$75 trillion (Jacobsson Purewal, 2011), although this figure (more than five times US GDP) has been declared absurd by the presiding Judge. However, it is critical to note that the principal technological developments underpinning these were not deliberately designed for the purpose of disruption or circumvention. For example, digital audio compression formats, the most ubiquitous of which is the MP3 audio file format developed by Fraunhofer were designed to make digital audio files smaller in data size. In actual fact, MP3 was developed as part of the MPEG1 video compression format as the audio layer 3. As Watkinson (2002: 157) notes, compression allows extended playing time, miniaturisation, relaxed tolerances, bandwidth reduction, faster transmission and/or better quality. There is, therefore, nothing inherently illegal in these aims and what the format facilitates. Similarly, the growth of broadband bandwidth, the increase in computing processing power and the shrinking of storage costs have driven the practices discussed, though by accident rather than by design.

Though the appropriation of the principal technological drivers could be said to be unforeseen, there is 'deliberate' technological development and intervention which has usurped music industry control in allowing consumers to connect and file share. This has been facilitated by software developers who produce services such as Pirate Bay and Limewire. The proliferation and seeming nerve in these developments seems to know no bounds. For example, Pirate Bay founders denounced the music industry's actions, and exuded confidence in continuing even whilst facing legal action (Waters, 2009). There has also been a general cultural shift which seems to find a flexible attitude towards Intellectual Property Rights acceptable. Some of this comes from the internet community who like to consider music along with other media as merely content to drive traffic. Also, there has been extensive interest in the uses of the internet to promote and sell music without the need of a record label. Authors on the subject (Ashurst, 2000; Mewton, 2001; Gordon, 2005) have outlined the potential for an artist to connect directly with the consumer without the need for a record label, publisher or traditional distribution. The methods outlined often involve giving away music recordings directly to the consumer in the hope that they will buy music as a result. A traditional record company would only give promotional copies to key influencers (press, television and radio producers) so the idea of an independent record company directly giving the consumer free music has emerged as a new strategy. It does, however, plant the idea in consumers' minds that music can (and perhaps therefore should) be free, and the Music Technology sample follow this pattern.

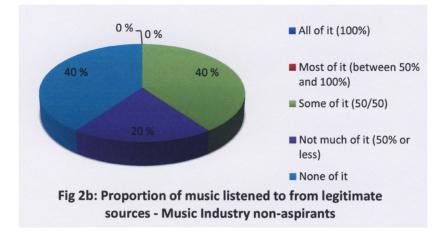
Interestingly, there is some difference in habits between those who wish to work in the music industry and those who do not or are unsure. In the second group, shown in figure 2b, the skew is towards listening to music of which "not much of it" (20%) and none of it (40%) has been acquired legitimately. Therefore, those with music industry aspirations (figure 2a) favour more of a 'mixed' collection, whilst those without such an aspiration err towards listening to more music from illegitimate sources. This difference between those with or without music industry career aspirations seems to suggest that those who are technically-savvy but have no regard or affinity for the music industry have greatest disregard for intellectual property rights.



In terms of the sources of music listened to, the respondents overall have mixed collections of legitimately and non-legitimately obtained music, though the non-music industry aspirants err towards the non-legitimate. This can be explained by their gender and technical aptitude, where they are actively engaged with the kind of technology which undermines traditional practices in music production and consumption.

Reasons for behaviour

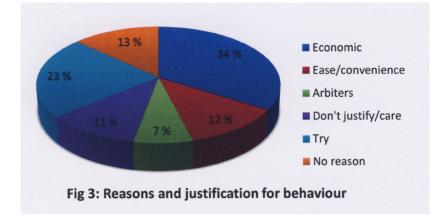
Given that the habits of the respondents involve music which may be obtained illegally, it is important to examine the reasons which they give for their behaviour. Without knowing the reasons the picture of the middle ground would only be partially examined and it would likely



pose more questions than answers. The group were asked how they justified or explained their behaviour of illegitimate music consumption. Though free to give any answer and as much detail as they liked, they tended to fall into particular lines of argument or justification, with more than one reason often given per respondent. Answers fall into the following categories: Economic, ease of use/convenience, the listener as arbiter of value, not caring or feeling the need to justify, try before you buy, or no reason given, shown in figure 3.

The most common justification given is that of economic need and is cited as a reason in 34% of answers. Typical of these are responses such as "it's free" or "as a student, I am permanently broke". Respondents justify their behaviour of listening to music within the context of their identity as students with limited income. This is despite their listening habits being different to their peers (their habits have been shown to be more sophisticated and time consuming). The prevalence of this response is similar to those in Bahanovich and Collopy's (2009: 17) findings where 40% of respondents consider being able to acquire music for free as the main incentive.

Whilst the opportunity is technologically-mediated, the inspiration is shown to be economic – if it can be acquired for nothing, why should it be paid for? The consumer acquires the music, but the record company receives no financial recompense in return. This obvious motive is the one which the music industry has focussed on in arguing for more legislation against piracy. It is argued that if consumers are getting music for free, this equates to lost sales. Organisations such as the IFPI, the RIAA



and the BPI have kept up a constant battle against technology companies (ISPs, software developers) as well as governments, arguing the piracy is responsible for much revenue lost to the music industry. Given that they point to the common acceptance of file-sharing, they would no doubt, be surprised to see music industry aspirants following the same route.

The link between so-called piracy and a decline in recorded music sales is, however, a complex one which is not as straightforward as industry organisations such as the IFPI, the RIAA and the BPI would purport. There is, in fact, plenty of research which questions the causal aspects purported by industry organisations, and others which deny the link altogether. For example, Oberholzer-Gee and Strumpf (2007) showed that there is no link between illegal file sharing and lost sales. The writers point out that much of the illegal activity is completed by the 'time rich, but cash poor' college kids who would not buy the music anyway, and so does not constitute lost sales. Furthermore, they go further to suggest that P2P is akin to radio in its potential to promote new music which can result in sales through traditional and digital channels. Contrary to the message of the music industry, file sharing can, therefore, be a potent method of promotion driving consumers to buy music. Additionally, the IFPI's own statistics and piracy-related rhetoric have come under question. For example, when the Australian Institute of Criminology (AIC) were asked to produce a report for the Australian Government, it referred to the unreliability of the research and the fact that music and software companies were more concerned with influencing government than producing reliable data. Though not intended for public use, the report was leaked, and the AIC found it necessary to refer to the report only being a draft such was the veracity of its observations (Green, 2006; Hayes, 2006).

The next most common reason given in 23% of answers is the concept of 'try before you buy'. These responses are typified by "see if it's worth buying" and even "see if it's any good, if it is, I buy it, if not, I delete it". This is in-keeping with one of the more positively-viewed characteristics of file-sharing and music downloading – the fact that music can be sampled before a choice is made to buy. The frequency of this response is the same as that of Bahanovich and Collopy's report (2009: 17) where 23% cite the ability to "experiment/try new music" as a motivation. In anticipation of the 'try before you buy' concept, a separate question was asked and is discussed later.

A further reason given in 12% of answers is the ease of use, the convenience and/or choice associated with music downloading and sharing. Detailed answers include "most of the records I listen to are not available in my country", "it's much easier to download it through the internet than go to the store to buy it" and "it's hard to find somewhere to buy niche songs".

The previous two responses highlight the more positive aspects of file-sharing or downloading; allowing the listener to easily locate, and experience music before deciding to buy (or not). In some instances, this can be argued to be a positive thing in that it encourages the discovery of music, and facilitates purchasing later on. A behaviour may, therefore, be illegal but can produce economic benefits to copyright holders at some later point. To make this distinction, each act of illegal downloading may be different not only in its motivation but also in its fit with other music consumption habits. Lessig (2004: 68) examines these approaches in detail by differentiating between file sharers who (i) download instead of purchasing (ii) use sharing networks to try music before buying (iii) download copyrighted material which is no longer sold or is too expensive or (iv) download material which is not copyrighted or the owner wished to give away. Only the last example is legal behaviour, but the other three whilst illegal do have differing economic effects. In the first example, clearly the copyright owner is losing out economically as purchase is replaced by illegal download. However, in the second example, the available technology is being used to sample and experience music before purchases are made. In this research, the fact that the respondents have mixed collections show that these are not necessarily lost sales as the purchase can be driven by sampling and experiencing new music.

Nearly as common (11% of responses) are answers which reflected the view of either not caring or not feeling the need to justify behaviour. Responses in this category are typified by "I don't feel the need to justify it" and even "I know it's wrong. I know it's illegal. I know it's technically stealing...sorry about that". This category also included some interesting responses which demonstrate the ability to use deeper knowledge to argue a case. These are typified by "I'm only following social trends that have decreased the public's regard for copyright law". Overall, there are a significant number of respondents who do not see anything wrong in what they do or do not feel the need to justify it.

These responses highlight the fact that even those who have an affinity for the music industry can act illegally so long as there are no consequences. Just as Frith (1993: 1) pointed out with home taping and sampling, economic, legal and ideological institutions have tried to see off the challenges which technology and commerce bring to art. Success is by no means guaranteed and depends upon specific ideological and economic struggles. In this instance the middle ground is sticky because of the interface between the established copyright owners and the technology-facilitators. It has no clear resolution, and if the ideological voices have equal weight, it is only consequences which will stop illegal behaviour. All the debate regarding the pros and cons of downloading do nothing to resolve the ideological differences. Jones and Lenhart (2004: 196) observed the same behaviour in their work on the Pew Internet and American Life Project stating that "music downloaders believe music occupies a special place in their lives and in the world, a place that they believe is not subject to the same rules and regulations found in the world of commerce".

Possibly the most interesting category of answer (7% of responses) is where respondents express their behaviour as justifiable as they think of themselves as what will here be referred to as 'arbiters of value'. In such instances, they express the opinion that it is their choice whether to pay for something or not, based on their assessment of its value. Examples of such answers include:

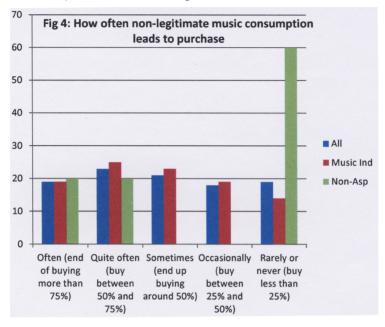
Really don't care, almost all the artists I listen to are loaded anyway. The artists I respect which aren't, I support by attending gigs and buying sheet music etc. In my opinion if the artist has been successful for a long period of time (10–20 years), it doesn't affect their pocket as much. But I always support new artists.

In these examples, the respondents see themselves as being qualified to choose what to pay for, based on perception not only of the product but of the artist's position. As students of Music Technology, it could be the case that these respondents believe that they are better placed to judge not only a recording but also the status of the artist because it is their area of study. However, justifying illegal downloading and file sharing on the grounds that it does not harm the artist is not unusual. In the more general populous sample used by the BPI (BPI, 2010), 19% of respondents thought that illegal downloading did not harm the artist.

In this aspect, the rationale is one of ideology in that the respondents believe that they have the right to decide based on their own judgement of value (of the music itself and of the artist's position). This reflects Marshall's (2004: 197) assertion that piracy is not primarily an economic concept but one of ideology. As a "socially-mediated relationship between publishers (and, in this case, the recording industry), artists and the public", it is constantly being challenged. Presently, technology and the proliferation of online music (legal and illegal) provides the consumer with infinite choice (types of music, commercial or not, legality etc.). This can only serve to persuade the consumer that the power has shifted away from the established music industry towards the consumer. In this instance, with no-one else to decide, and the death of Hirsch's gatekeepers (1972), the consumer has to decide for themselves. Inevitably, the downloader's own judgement of value comes to the fore – whether it is worth paying for and, if so, how much should be paid.

Music Purchasing

In anticipation of the 'try before you buy' concept, the group were also asked how often any illegitimate music listening led to purchase of music. Shown in figure 4, options offered ranged from often, quite often, sometimes, occasionally and rarely/never. Across the whole group, the numbers within each choice are very similar ranging between 18% and 23% across the choices. However, amongst the group who have no intention or are not sure if they wish to work in the industry, there is a greater skew – 20% said often, 20% said quite often but 60% said rarely or never. This seems to further support the difference in behaviour between the two groups already highlighted by the sources of music listened to, where the non-industry group had more illegitimate music listening. In this aspect, the non-industry aspirants are less likely to purchase music which they had heard from illegitimate sources.



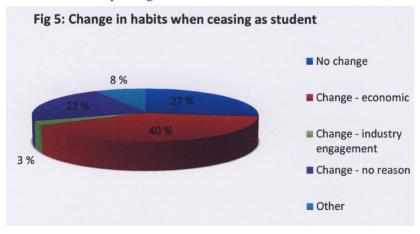
These findings reflect assertions that not only does music downloading not necessarily substitute for purchase, it can and often does lead to purchase (Lessig, 2004; Oberholzer-Gee & Strumpf, 2007). It is also important to note that the practice of swapping and experiencing new music is not a new one completely, as many other new emerging media have caused the music industry to engage in battles to squash the technology. Examples of this include home taping (Frith, 1993: 2), VCRs (Lessig 2004: 75), and Digital Audio Tape (Fairchild, 2008: 59). In each instance, the emerging and potentially destructive technology undermined the established distribution model of the music industry.

Changes in behaviour

In anticipation that the majority aspire to work in the industry, and that their identity and behaviour may therefore change, the group were asked whether their music buying and listening habits were likely to change once they progressed from being students to being employed or self-employed. Shown in figure 5, the responses cover a broad range but fall into distinct categories, with some responses including more than one reason. These range from no change through to yes (with a range of reasons) and yes (but with no reasons given). Typical reasons for a change fall into the following categories – economic, more engagement with the music industry, or others.

The most cited answer (40%) is that their music buying and listening habits will change for economic reasons. Answers are typified by "[w]hen I have more disposable income I will buy all of my music" (in the case of a respondent who presently listens to music which is "mostly" legitimate) and "[y]es, if I have more money, I would buy CDs/vinyl more because I prefer the physical format" (a respondent who states that "not much" of her/his music listening is legitimate).

The next most common answer is that their habits will not change at all (27%). In such instances, respondents are unable or unwilling to see the contradiction of acting illegally in obtaining goods from the industry which they may be working in. 22% think that their habits will change but do not give any particular reasons. Lastly, only 3% cite their expected position within the music industry as a reason for them to change their habits, with no response given in 8% of cases.



From these results, it is firstly interesting to note how insignificant they see becoming part of the music industry in altering their behaviour. This could, of course, be due to the difficulty of 'projecting' into a future. However, it could also be down to the fact that they merely believe that the music industry will have to adapt to the new ways of working and that consumers being able to choose to pay or not is unavoidable. Answers relating to the difference between owning physical versions of recordings compared with digital do point to the fact that as consumers and producers they are prepared to pay for some variants of a music experience over others, deeming 'physical' goods to be desirable. Kusek and Leonard (2005: 158) have pointed to a future where, within music sales, only one third will be made up from content; the remainder will be from related products and services. It seems that the group are well grounded in this future, seeing an increase in disposable income as an opportunity to buy music products and services. Such a response also resonates with the work discussed which questions the music industry's standpoint on piracy and points to it having potential economic benefits (Oberholzer-Gee et al, 2007; Lessig, 2004). The group will still pay for music experiences if they deem them to be of sufficient value.

Summary and future implications

Given their extensive use of music acquired illegitimately, the group of music industry aspirants presently behave more consistently with their peer group of students than with the stance of the music industry. Their economic status is commonly cited as reasons for behaviour which they know to be illegal and a significant number do not believe that they have to justify their actions at all. There is evidence that their habits will change when they make the transition from students to becoming employed or self-employed though such a change showed most likelihood due economic status rather than a role within the music industry. A position within the industry did not appear to be a significant influence on change in behaviour and a large proportion do not think their habits will change at all. There is some evidence of more legal music consumption on the part of students aspiring to work in the music industry than those who do not. Those who do not, as technically-savvy, mainly male young consumers have largely illegitimate music listening habits, which they indulge in for more than an hour each day. These results have some important implications in showing the present situation and how the music industry is likely to have to deal with Intellectual Property issues in the future.

Firstly, it can be said that education is clearly not a sufficient tool in managing behaviour when used in isolation. The group listen to music which has been obtained illegally and will continue to do so despite knowing what is legal and what is not. This is consistent with the BPI research (2010: 79) which showed that an educational letter would only be a deterrent to 24% of the respondents. It therefore highlights the need for initiatives such as the Digital Economy Act (2009) in the UK and 'three strikes' draft legislation in other countries such as France and Finland. Such legislation provides for an ultimate legal deterrent should other interventions (such as education) fail. The BPI report (2010: 78) refers to the need for a "systemised process of education, guidance, deterrent and warning" and, from these findings, legal consequences seem necessary where individual morals or ethics fail to stop illegal music consumption.

Secondly, the results and discussion show that the conflict between the music industry and downloaders and technology companies such as ISPs is far from resolved. The music industry has thus far failed in its attempts to squash use of emerging technologies to facilitate music consumption. Furthermore, it has failed to persuade this group of music industry aspirants of the validity of its argument. Had it done so, the music industry aspirants would engage less with illegally-obtained music at the present time and in the future when they work in the industry. It is not just the conflict between the music industry and those outside which feeds this situation however - the music industry itself displays some contradictory behaviour. Examples such as the strategies of Radiohead and the comments from Trent Reznor explained earlier show this from the artist's position. However, industry organisations also show differing views, such as that over 'net-neutrality' in the US. Though the RIAA is, unsurprisingly, opposed to net-neutrality, the American Association of Independent Music (A2IM) takes the opposite view. Their president Rich Bengloff has stated that "[o]pen internet structures are our best means through which to do business, reach listeners and innovate in the digital realm" (in Music Ally, 2010: 5). So whilst the more established music industry continues to try to prevent and squash, independent producers and aspirants know that their best chance of reaching consumers is through new technologies and practices.

Despite the lack of resolution there is certainly no going back to the time when the music industry had complete control of the distribution chain. Technology has not only produced a new infrastructure in which control and choice resides with the consumer, it has also resulted in a massive change in thinking. This change of thinking means that choice is integral and this choice extends from the type of music (including the previously difficult or impossible to find), to how much will be paid for it (if anything). Though their course of study, habits and stated career aims indicate that the group examined here are typical of those who aspire to work in the music industry, they also know that choice now resides with the consumer and if the industry is to benefit economically, it will need to adapt continually. How this adaptation plays out in terms of industry operation and Intellectual Property law is the big question, reflecting Marshall's (2005: 1) point that "intellectual property issues are some of the most important facing the world today".

Furthermore, the fact that the group examined have mixed music collections, but still want to pay for music when they have greater economic means underlines that future music services need to look at new models of value. As what Prensky (2001: 1) refers to as "digital natives", the group is in contrast to the "digital immigrants" who run the music industry. Hence, they are better placed to understand that choice, different experiences, and trying before buying have to be at the centre of what is offered. As the BPI's Chief Executive Geoff Taylor has stated, "[m] usic is as popular and as central to people's lives as ever" (BPI 2010: 7). However, unlike Taylor, and in keeping with what Kusek and Leonard (2008: 20) outline, the group do not see the music business as just the recorded music business. Looking at their behaviour, particularly when they exert their roles as arbiters of value, they have already unbundled the recorded product from the music experience. File sharing, social networking, and discussing music is their whole music experience and they may pay for recorded product as part of this. The greatest potential exists for the group to apply this philosophy by aiming to grow digital services which entertain, rather than being concerned with piracy centred on recorded product.

The technology of distribution and consumption has been shown to be the main facilitator and will continue to be key. As Sparrow (2010: 67) notes, the music industry represented by the RIAA was caught out

by the speed and reach of the technology of the internet, and many of the systems were simply not ready or workable. Using emergent technology as an integral part of the business did not seem an attractive proposition and it has only really engaged with it as a last resort. By contrast, the behaviour of the group here, in contravention of intellectual property-rights law, is technologically-mediated as a first resort. They do not follow what would be acceptable to tradition, and instead embrace new technology to achieve their aims, in this case, listening to music. There is no reason to assume they would not take the same approach when they become more economically active. In that case, when working within music businesses, their aims will be achieved using technological means first before thinking about more traditional functional areas such as those of marketing, promotion, legal affairs etc. Looking at recent history, the contrast between firms engaged in music being technology-led or content-led is marked. So whilst the major record companies have continued to try to control the distribution chain to protect and exploit the existing content, companies such as Apple have come to the fore. Apple disregarded the traditional and established methods which were based on physical product. By allying their hardware (most significantly, the iPod) with the music they were selling via iTunes, they presented consumers with a compelling offering without owning any content themselves. In this instance, they have been able to offer a new music consumption experience based on choice, convenience, function and experience. Of the majors, Sony who are effectively a technology company as much as content-owners could have done the same but their background in content meant they were less willing to embrace and utilise emerging and disruptive technology. Recent events suggest therefore that technologically-led solutions rather than content-led solutions grab consumers' attention. Given that the group adopt technology solutions as a first move, they should be well-placed to develop new solutions and services which music consumers will value.

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