

INVESTIGATING THE CULTURE OF MOBILE LISTENING: FROM WALKMAN TO IPOD

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1. Introduction

"I am a huge music fan. When I was a girl, I dreamed of having my own Wurlitzer jukebox to play my music, so I could have all my favourite songs available at a moment's notice. I own over 1000 CDs, and would never be able to listen to that volume of music if it weren't for the iPod. While it took weeks to rip every CD I have to my iMac, the time was well spent. The ability to take a large chunk of my music collection with me wherever I go is amazing. I now listen to music any time I can: walking to and from work, at work, on vacation, on a train or aeroplane, even at home when I don't want to disturb my partner. I have any song I want to listen to at my fingertips at any particular moment. That amazes me. It truly is my own personal jukebox, and puts the soundtrack to my life in my pocket and at my fingertips." (Anna)

"It has dramatically changed the way I listen to music. I use my iPod every day, generally for 4-6 hours a day. I listen to it at work, at home, in my car, on the subway, etc. While I frequently carried a personal CD player before, the iPod has become a necessity. When I leave the house, I now check my pockets for four things: My wallet, my keys, my mobile phone, and my iPod. I never go out without all four on my person." (Mark)

"I can't overestimate the importance of having all my music available all the time. It gives me an unprecedented level of emotional control over my life." (Terry)

The ability to carry your auditory identity in the palm of your hand as you move from one place to another is a relatively recent event in the history of mobile sound technologies. For many users the Apple iPod is the most recent of 'magical'

technologies that celebrate miniaturisation and mobility coupled to the power of capacity. The present analysis based upon original research, focuses upon one specific MP3 device, the Apple iPod, which presently dominates the MP3 market.²⁶ However, the development of MP3 technology should not be understood in isolation from other mobile technologies, as Mark comments above, he never leaves home without his mobile phone either, in many respects, the use of the mobile phone mirrors that of the Apple iPod - all of the users contacts in the palm of their hand.²⁷

It is also important to contextualise current iPod usage with previous generations of mobile music reception. Mobile sound technologies and their use do not exist in a cultural vacuum - prior to the Apple iPod came the personal stereo. Prior to that, the transistor radio and the portable record player and of course there exists a history of mobile listening in automobiles through radios and then cassette players (Bull 2004). Mobile listening habits and desires also should not be separated from forms of domestic listening in the home that often provide the cultural pre-disposition to the desire for continual listening to either music or the voice whilst on the move (Bull 2000).

The history of mobile listening is also the history of a ratcheting up of consumer desire and expectation - consumers habitually expect these technologies to do more and more for them. In the process these technologies have transformed the way in which many users listen to, process and classify their music during their day. As mobile technologies developed so consumers were able to choose from an increased array of players - from the simple tape machines of the early personal stereos; the portable CD player to more recently the mini-disc player. These new formats incrementally increased the users flexibility and choice over their music choice. Freedom of choice, for the contemporary music listener, appears to be qualitatively changed with the development of MP3 technology and the development of products such as the Apple iPod whereby users can not only store thousands of tracks but also continually select how they listen to music. Users are able to construct an array of

²⁶ The following empirical material derives from an ongoing qualitative research project on the use of iPods internationally. The 1004 respondents are mainly from the UK, USA, Switzerland and Denmark. The research was conducted by Internet questionnaire consisting of thirty-five questions concerning use. Selected individuals were then subsequently asked to elaborate on the answers. In addition to this a smaller pilot study of UK users was undertaken using face to face interviewing. The Internet responses were gained from author requests placed on BBC Online News, The Guardian Online, Wired News and MacWorld. The Apple iPod was chosen for the object of research given its dominant role in MP3 use with around 70% of the market.

²⁷ Whilst the mobile phone and the Apple iPod are joined in their mobile communicative functions, they are of course vastly different technologies. Many iPod users stated that they actually disliked using mobile phones regularly. One reason for this is the continuous nature of iPod use through which the user constructs an auditory cocoon around them which in itself is often experienced as empowering as contrasted to the discontinuous nature of mobile phone use whereby the user is always potentially at the beck and call of others.

playlists permitting them to stream their music in any desired configuration or alternatively they give themselves up to the random 'shuffle' of the machine itself.

Whilst forms of mobile listening have often been seen as a solitary exercise it is important to recognise that forms of solitary use are deeply social. The way in which users occupy social space is relational. They look, they listen, and they think and interact through their privatised and technologically mediated soundworlds. Relational experience has three dimensions; the cognitive - how the user manages their moods and thoughts to music; the aesthetic - how they construct their relationship to the outside world, and the moral - how users relate to other people. We notice the moral dimension when we feel affronted by a personal stereo or iPod user who fails to take out their earplugs at a supermarket check out counter for example or by the inconsiderate use of a mobile phone in public space. New mobile technologies continually confront and inform us with how we construct our sense of the social through them and consequently how we negotiate shared space socially.

Whilst Apple iPod use mirrors the privatising tendencies of the personal stereo, it also encompasses a host of new ways to consume music that might be thought of as both more 'mobile' and as offering greater possibilities for collective music reception. For example, Apple iPods can integrate the user into new forms of social behaviour through its use via automobile radios, by plugging it into home stereo units to be played as a domestic jukebox or by plugging it into the users computer at work. More recently iPod clubs have sprung up in New York, London and Melbourne whereby iPod users provide the music for the evenings entertainment.

2. The Culture of Personal Stereo Use

Explanations concerning possible meanings attached the use of devices such as personal stereos often use variants of urban theory as reference points. From this perspective urban dwellers might be thought of as responding to an overload of sensual stimulation and physical proximity resulting in strategies of 'retreat' (Simmel 1997). Alternatively urban streets might be considered as semiotically bereft of interest (Sennett 1990, 1994, Auge 1995). Another and related concept is of the alienating city, the city full of strangers and potential danger as reflected in the work of Bauman and others (Bauman 1991 and 1993). These images of urban life are primarily negative and appear to explain the desire of many to transcend their everyday urban experience through the creation of a privatised auditory bubble in which they can control or neutralise these negative experiences of the city. In contrast to this largely negative image of urban experience some theorists take a more positive view of the city invariably taking the work of Walter Benjamin as their starting point. From this perspective personal stereo users are thought of as latter day flaneurs in which the city becomes an aesthetic site. In a similar vein situationalists like Debord developed the notion of the aestheticisation of experience in which the city becomes punctuated with the 'spectacular'. In parallel to this the work of de-Certeau provided a focal point for post-modern images of the urban subject revelling in the freedom of the city streets in a fragmented and de-territorialised manner. All of these perspectives on urban life were primarily

informed by a visual epistemology of experience rather than an auditory one. This is significant as visualist approaches to behaviour tend to be 'externalist' whereas a sound based analysis tries to grasp the subject's 'interiority' resulting in a differing explanation of the relational qualities attached to the activities attached to personal stereo use (Bull 2000).

An auditory based explanation of mobile listening focuses upon forms of self-prioritisation that enable users to interact or not interact with others and the spaces passed through at will. A central metaphor for use is one of 'control' or the management of experience through a creative dependency on the technology of the personal stereo and the music contained within it. Personal stereo users often created forms of accompanied solitude constructed through a manufactured industrialised auditory. In doing so users transform or control their mood, thoughts and forms of interaction with others and their environment, be it the street, the tube or the shop. The strategies of control are summarised below:

- One urban strategy aims block out any external sound - to control one's aural environment very much in line with Simmel's understanding of the urban. From this perspective personal stereo users were responding to the chaos and uncontrollable nature of much urban life. By creating their own auditory bubble they could gain their own sense of space. Users were better able to cope with the close proximity of unknown others. By listening to their chosen sounds they thus created a sense of their own space and a sense of order for themselves as they moved through the street or as they sat in a crowded tube or bus. In this sense personal stereo use acted as a form of boundary demarcator enabling users to operationalise a range of strategies to negotiate crowded urban space.
- In contrast to this many personal stereo users listened to music in isolated streets bereft of people or noise. For many users the desire and ability to move through space and time accompanied by their very own 'soundtrack' was of paramount importance. In doing so they felt connected to culture with musical accompaniment becoming habitual to their daily life on the move. Personalised and privatised music gave users a feeling of 'specialness' whilst on the move.
- Alternatively, and in line with writers such as Debord, users were able to 'aestheticise' their urban experience through personal stereo use, often describing the city in filmic terms. Their journey would become an audio-visual spectacle in which they perceived themselves to be the creator of the script. These forms of aestheticisation were not in the image of Benjamin's flaneurs though - an image in which the subject imagined themselves as the 'other' but rather a remaking of the urban to fit in with the users thoughts and desires - a mimetic aesthetic impulse.
- Given the mundane nature of much everyday movement through urban space it is hardly surprising that many personal stereo users reported not noticing the spaces of the city they habitually moved through. Cities were for them not particularly visual, in the sense that they did not habitually or actively look at the environment passes through. Rather they preferred to be immersed in their own auditory world - often using the music as an auratic mnemonic in which the music listened to conjured up feelings and sensations from their own narrative.

In effect personal stereo users were placing themselves elsewhere, transforming their mundane daily experience into one of personal significance and meaning.

- Equally, some users felt a sense of isolation whilst on their own and used the personal stereo to allay these feelings. Users tended never to feel alone whilst listening to their own chosen music - rather as many consumers switch on the radio or television as soon as they arrive at home in order to create the feelings of a home inhabited.
- Users often reported using music to control their own 'internal chaos'. Music was used as a means of ordering their own thoughts and feelings. Users claimed that they were often unable to control unwanted thoughts and feelings whilst alone. Personalised music permitted the user to channel their thoughts and desires successfully. Users would describe 'clearing a space' for themselves through the use of the personal stereo by creating a 'cognitive space' for themselves in which they could successfully inhabit. Personal stereo use thus minimised the contingency of the users moods, thoughts and emotions.
- Personal stereos were also used to control interaction with others. The headphones dangling from the ears represented a 'do not disturb' sign making it harder for others to initiate contact with the user. Indeed, it is unusual for personal stereo users to initiate interpersonal contact whilst listening to music. The use of a personal stereo in public also permitted users to engage in forms of interpersonal strategies that I have called 'non-reciprocal' gazing. Users might be stared at by others but do not have to return the gaze - listening in this sense signifies 'otherwise engaged'. Women users, especially, reported feeling much more secure in urban environments (in the day at least) precisely by not having to return the unwanted gaze of others. Users could also control interaction when it did take place by keeping one earplug in, so that they could continue listening to music whilst interacting. In effect users often pretended to listen to the 'other'.
- Use was also reported as a method of regaining control over the users time. Commuting time, for example, was often described as becoming a time of relative pleasure as the user listened to their chosen soundtrack to the day. Meaningless time thus became transformed into the users own time.
- Music also has an energising function for many users as they walk or cycle through the city or as they use their privatised sounds to jog or work out in the gym. The body works in rhythm to the music and by extension to the outside world.

The 'typology' above represents the spectrum of strategies that any personal stereo user might engage in. On any journey users might switch from one mode to another. Unifying these diverse practices was the desire to listen to their own chosen music when and where they wanted - preferably on their own terms. Users described being transported into their own auditory world, transcending the often-mundane reality in which they were placed. The transcendent quality of music was invariably successful for users as they moved through urban culture.

Users invariably were very happy with this relatively simple piece of technology that enabled them so successfully transform their daily experience. Yet as mobile

technology developed so users were able to choose from an increased format of players - from the simple tape machines of the early personal stereos to the portable CD player to the minidisc player. These new formats enabled users to take more music with them whilst on the move. With the arrival of MP3 technology we see a qualitative transformation in the capacity of users to transport and listen to their chosen soundtrack to daily life. The relational qualities and strategies attached to personal stereo use are mirrored in many of the uses of devices such as the Apple iPod.

3. From the Personal Stereo to the Apple iPod

The swift transformation of mobile listening over the last four years has been dramatic. On a recent visit to Dixons, a large high street electrical distributor, I found a large basket on the floor containing the stores remaining CD Walkmans, all on sale at a cut down price of £9.99. Today's consumers want the listening possibilities and choices that MP3 technology gives them.

Whilst personal stereo players permitted users to choose their own soundworld, they did so in a very restricted way. An important element of listening for users was the ability to synchronise music to their mood or surroundings. Users often found themselves in situations where the music didn't 'work' for them - leading to the music reluctantly being switched off, for many users 'incorrect' music was invariably worse than no music at all. Traditional mobile music technologies were often unable to manage the complexities and vicissitudes of the subject's moods or environment. So whilst personal stereo use enabled users to reclaim the rhythm of their day whilst they moved from one place to the next, it also posed problems of music selection and transportation.

MP3 technology has also produced a radical and swift change in consumers' expectations concerning what they can do with mobile sound technologies. The nature of mobile soundscapes has been subject to rapid change with users now able to modulate their experience to music - to fine tune the relationship between mood, volition, music and the environment in ways that previous generations of mobile sound technologies was unable to do. John, a twenty six-year-old graphic designer from Manchester takes us through a mini history of the functionality of mobile music devices:

"Before the iPod came a Sony MD Walkman, before that a Rio 600 MP3 player, and before that was a long string of portable CD and cassette players. I think when I was very young I owned a portable radio...Memory size was the deciding factor. I had previously been using a Sony MiniDisc Walkman for a little over a year. I liked that I could keep 5 hours of music on a disc (much better than the 2.5 hours I could fit on my Rio MP3 player), but I got sick of switching discs every so often. Plus, it was cumbersome to switch between tracks. The MD player had a terrible interface for entering song title information (no ID3 tag compatibility), so I gave up on doing it myself after about 2 discs. I gave up on the MiniDisc and bought an iPod. I no longer had to change discs every time I wanted to hear a particular song or album, and

I could carry around 80 hours of music in something roughly the size of my MD walkman, without having to carry any discs. It was a revelation." (John)

Johns description of the technological developments that have produced the Apple iPod represent a combination of technological functionalism - 'what the technologies enable him to do' - married to a sense of wonder at the listening possibilities that the iPod. Users invariably point to the 'freedom' of being unencumbered that the Apple iPod provides them with. The artefact no larger than a mobile phone - yet containing the whole of a user's musical history:

"Prior to my iPod, I used to carry around 5-6 mini-discs (or 2-3 CDs before that) so I had to 'plan' what I might want to listen to in advance. If I didn't have time, or couldn't be bothered to change the spare MDs or CDs before going out, my choices were then limited, often to the most recent acquisitions which would then get over-played. Since having my iPod, I have some 280 albums at my fingertips, and often find myself listening to something I haven't heard in a long time." (Roger)

Users continually refer to the wide range of choice that the new technology provides them with and appear to be increasingly attentive to the relationship between their mood and the music listened to. Technologies like the Apple iPod permit them to synchronise their music to volition, purpose and mood - to fine tune the body to the rhythm of their chosen music. As such, the solitary uses of the iPod are inherently social in that they permit a transformation and control of the user's everyday experience. The Apple iPod does this more successfully than more traditional mobile devices as the user synchronises the world to their own private soundworld - the world walks in step to the iPod user.

4. Planning not to Plan: Playlists and Life on the "Shuffle"

The technological limitations of technologies such as the personal stereo meant that users had to invariably plan their listening modes - the effectiveness of personal stereo use to successfully deliver what the user wanted was normally based on the choice of appropriate music by the user. Hence, successful personal stereo use was often based on planning - assessing what they would most likely want to listen to for the coming day. For some users this was not a problem as they might listen to the same music for long periods of time, changing their tape infrequently. Others confronted with the breadth of their music collection, and unable to plan or find the suitable tapes or CDs would merely pick some tapes in hope rather than knowledge. The common denominator of use was that music listened to had to suit the moods of the user throughout their periods of use. Personal stereos tended to be used as in between technologies taking the user from their front door to their destination seamlessly.

Apple iPod use permits a re-assessment of the role of mobile sound technologies in the management of users' time and casts fresh light on the cultural ambivalence associated with the liberation from schedules and planning at the heart of the

rhetoric of many users - indeed not to plan involves much planning for many iPod users!

"Before when I had a Discman I had to plan ahead and think of the several CD's I'd want to listen to on a given day. Now there's none of that...Whether I plan or not depends on my mood - if I'm irritable, bored and fed up then I might choose an album rather than shuffle through all my library - since I only want to hear stuff I want to hear. Otherwise I might choose my 25 most played, or recently played playlists - these can get a bit samey though - so after a while I have to renew them by going through a burst of listening to new stuff." (Emily)

"The iPod also makes me think about ordering songs - although I've always been a mix-tape maker, but because it's so EASY on the iPod, it's much easier to get a mix right. I also use smart playlists to make sure I listen to songs I haven't listened to before - I share music with a friend, and when he gives me some tracks, I have a New Stuff playlist set up to make sure that I can find them easily." (Virginia)

The Apple iPods permit users to create endless permutations of the contents of their machines. Whilst listening might be solitary users often share music files with other users. Playlists can be endlessly changed and songs evaluated, scored and listed. Typically users will have a selection of playlists that suit a variety of moods, times of day, weather conditions, times of the year or musical genre. iPod users are invariably planners, spending hours creating playlists for themselves. The ability to continually adjust music with such sophistication and precision is relatively new, if indeed the desire to do is not:

"I listen to about 100 songs a day at work, and they come from three playlists - one I call "Dusty Tunes" which is anything on my iPod that is not soundtrack or holiday music that I have not listened to in a month. This is how I start the day and will play through until it's empty. Then I switch to general rotation, which is the same pool, but with no last listened to time constraint. When I listen to dusty tunes, if something comes on that bugs me (a dull track on an album I have for another track or tracks), I will look at the rating I've given it, and if it's a three I'll move it to a two (ones are awful). If it's already a two, I'll just advance through it, but I don't do either much. When I listen to general rotation, I am much more prone to advancing through 1-4 tracks until something comes on that suits the moment. Driving to and from work, I listen randomly to my 4 and 5 rated songs, and will also advance through them until I find one I am really pleased to hear." (Ran)

Freedom from planning for many comes with much planning! Consumers appear to engage in a form of 'mediated spontaneity' in which they micro-manage their experience precisely through the use of the iPod.

Alternatively, many users switch to the 'shuffle' mode of the iPod at various times. The 'shuffle' function plays any music contained in the users iPod at random. In doing so, users give themselves over to their music collection and the technology of the iPod. Heather a 33 year old projects manager in New Jersey typifies this customisation of travelling sounds:

"It's everything I would want to listen to - I'm a girl - I change my mind all the time and my iPod can keep up with that. I normally listen on shuffle, there are times where

I will put on one song, and then half way through it I will change my mind and switch it to another song because my mood changed or the song wasn't capturing my mood correctly." (Heather)

Most users use a combination of playlists and the shuffle mode on their iPods. The use of the random mode permits a rediscovery of much of their music collection. Many iPod users have simply download their whole CD collection onto their computer which may well contain thousands of songs they haven't listened to for some years. The 'shuffle' mode permits them to rediscover much music that previous habitual modes of listening had often discounted. They can then choose whether to delete certain songs that they no longer like or to re-invest time listening to them afresh:

"I can make playlists for any kind of mood, or just let it play randomly, so that I can rediscover music in my collection that I haven't listened to in a while...I love to just turn the settings to random and then let it jump around my music collection. In this way, I can rediscover old favourites, and I get some wonderful juxtapositions that I would have never made on my own." (Janice)

"I tend to listen to the iPod on random a great deal of the time. This is particularly apt when I'm in no such mood to choose a specific album or artist. With a large music collection, it is very easy to forget some of the gems that are in there, and random tends to bring some of those out again. This often means I'll listen to a song, then it'll inspire me to go and listen to a specific artist, or genre...Today, I just had it in my four and five star playlist on random." (Thomas)

Listening to music on the 'shuffle' mode also permits a juxtapositioning of music to place that users would not have normally considered, thus making the listening exercise one of discovery and surprise. Whilst this appears to contradict the claim made earlier concerning the functional fit between user, place and mood, some users nevertheless claim that the music is either 'suitable' or that the unexpected juxtapositioning of disparate music to their environment in itself is stimulating. There is always a get out clause that the user can simply operationalise by merely fast-forwarding the music until something suits.

"I like to put my music on random....I don't like a set playlist in order. There's something about the spontaneity of a random song coming on that I really enjoy... I don't like it all planned and I like to be surprised as to what song will come on next. Sometimes it gets weird with the song selection, almost like the damn thing was reading your mood and playing a succession of songs that perpetuate a mood. It makes me wonder if the random function on the machine is just an unbiased algorithm or if my iPod is somehow cosmically connected to me." (Jason)

The iPod as the embodiment of the users musical identity, sometimes and unsurprisingly takes on the aspect of an intimate friend who knows just what the user would want to listen to at any particular time.

The continual re-adjustment of music collection and organisation to mood and circumstance is embodied in the design of the iPod and used by many users:

"A lot of times I choose a group of random songs in the elevator on the way downstairs (just whatever comes to mind), then, when I get to the subway, while I'm waiting for it I queue up a more extensive, personalized On-the-Go playlist. Basically the first time it's just to have something on, and then I make a real playlist for the 30- or so minute subway ride in which I have nothing else to do but listen (so it has to be something I like!)" (Daniel)

"I also love the on-the-go-playlist and make playlists when travelling. I no longer consider a tape/CD track list as a static object and rarely play track in the order in which they are listed by an artist." (Julian)

iPod use thus permits the user unparalleled control over the shape of their music collection and the mode of listening with their music collection becoming a more fluid entity subject to the users micro management of it to suit their mood or desire of any particular moment.

5. Automobile Sounds of the iPod

Apple iPods, unlike personal stereos, can be plugged into automobile radios and used as a source of music. The automobile has been a favoured site of music reception for many drivers since the installation of radios in automobiles in the nineteen forties. Since then automobiles have become increasingly sophisticated listen spaces with the introduction of cassette decks, CD players and now the Apple iPod. Many journeys are solitary ones yet even a solitary journey can produce a powerful sense of connection for many drivers as they listen to their favoured music through their iPods. Gerard is a thirty seven-year-old Swiss systems analyst living and working in America. His use strongly brings out the personal and nostalgic elements attached to music consumption.

"My drive to work is about 60 minutes. The first time I use my iPod on a weekday is when I drive to work. I have an 'iPod cradle' permanently installed in my car, so I 'pop' in the iPod, turn on the car stereo and 'blast off'...Sometimes I am in a certain mood (home sick to Switzerland, melancholy - thinking about my childhood or certain events in my life etc.) in which case I choose a specific playlist that has all the songs that relate to this specific situation. But in general, I have the device on 'Shuffle' in my 'Never been played' playlist...Driving in the countryside of Indiana does not quite take as much concentration as driving through the rush hour traffic in London. I usually set my car on 'cruise control' and just keep an eye on the traffic in front of me. The songs transform me to all kind of places in my life....And that is what I love about the 'shuffle' feature. Whenever a 'childhood' song comes on, I 'feel' like I am back in my parent's house. Then a track from an Australian band might bring me back to the 2 years I have spent in Sydney. I sometimes don't even remember that I have passed certain 'points' on my drive from or to work. This thing is a wonderful 'time machine' and is better than any diary." (Gerard)

Interestingly for Gerard, in these situations he is not really alone in his automobile but rather transported to where his music takes him. Whilst the nostalgic element of music is well documented, the use of the iPod differs from previous use

precisely through the control and attendant access to his musical narrative that the iPod affords him. Gerard is able to control his memory through the use of playlists or to have memories evoked unexpectedly as the 'shuffle' device throws up songs from his musical past. The iPod more than any other technology permits the driver full auditory control over their thoughts and memories:

"Prior to the iPod, listening to music in my car or at home involved either being trapped listening to what the radio station wanted me to hear, or changing out the tape or CD every ~45 minutes. The latter not only takes time, but also involves deciding exactly what I want to listen to next. That's annoying at home, and potentially dangerous in a car." (Jane)

"I used to hate the radio and was even looking into getting XM radio in the car so I would be able to hear MUSIC opposed to hearing POPULAR CRAP...now I have my own little personal radio station that knows what I like and don't, and can also tell me my hairdressers phone number and let me know if I have plans this coming Friday.... My iPod IS my music in the car." (Stephanie)

American users, whose dominant use is in the automobile (apart from the centres of cities such as New York, Chicago and Los Angeles) often see iPod use as a form of control against the commodification of music on commercial radio stations with their attendant habit of cutting off the beginning or ending of most songs. Some users will construct what amounts to their own radio channel for their journey with a mixture of songs and recorded radio programmes listened to it their own time, thus enabling them to free themselves from daily radio schedules.

"I love the iPod in the car, since it frees me from the bland corporate tripe that is American radio. I am no longer annoyed by ads and bad songs - now it's just me and my private radio station. My wife really enjoys the iPod in the car, as it has music we love on it, music for our kids, making it a very flexible companion." (Michael)

"I listen to more music in the car now. I very rarely used to listen to music while driving, as it used to give me headaches. I listen to Radio4 a lot less now. It also means I have a huge range of music available in the car, and not just the 6 CDs or tapes in there... there is always something for the wife, the kids, as well as me!" (Jack)

"I use to have 6 CD's in my car and that was it. Now I can listen to soundtracks one day and 80's music the next. My music can reflect my mood! The kids can choose between read-along stories and their favourite music too." (Fiona)

Both Jack and Fiona in the quotes above point to the collective use of the iPod in the automobile through the creation of family playlists suited either to all of the family or particularly to the children in the family. Whilst this can produce problems of choice depending on the musical taste of members of the family, many users pointed to the possibility of creating playlists that all the family might find acceptable - in this way musical choice produces a further sense of shared experience for the occupants of the automobile. However the following example

also points to the possible use of multiple iPod listening in the same automobile:

"The choice of music in the car was usually the radio or the kids CDs. Now I can listen to my music when driving using the pod when alone. I have used the pod with the car full of the family but not for too long as they want their music. Now that some of them have their own pods well that is great, as we all three can listen to our own choices. Two of the girls try to synchronise their pods to play the same song at the same time so they can sing along together!" (Jim)

Jim, a father of three in the UK points to the potential multiple use of the iPod. It is becoming increasingly common for all members of the family to possess an iPod. In this example, Jim points to the problematic nature of joint listening in the automobile due to differing musical tastes. The result is that he plays his iPod through the car radio whilst his children listen to theirs independently or playfully in 'harmony' resulting in multiple sound-worlds in the same space.²⁸

6. Apple iPods at Work

Many iPod users have taken to listening to music at work. The ability to engage in music listening at work is partially a reflection on the type of work of the iPod user but is also related to the new capacities of the iPod itself.

John is thirty-five years old and works in web development for a major international bank in New York; he lives in Manhattan with his wife and daughter. John has a long history of listening to music but describes the iPod as having permitted him to rediscover much of his music. He has downloaded all of his CDs onto his computer and then on to his iPod. John, like many users, travels to and from work listening to his iPod whilst also using it in his office at the bank.

"I now listen to music while I work...at work. I suppose this would be possible with a tape or CD player. But there are a lot of hours in the day, so the hassle of changing media and carrying it around in the first place means that this just isn't practical. With the iPod, it is...When I arrive at my desk inside my building. The iPod goes immediately onto my desk. Although I don't listen to it right away at work, I know I will at some point during the day (when I need its magical protection against interruptions.)" (John)

So whilst John had been able to use music at work previously, it had never come in a suitable form to make it attractive to him - what he desires is ease of use, seamless listening and his own music on tap. The iPod on the desk also signifies a 'do not disturb' message to other workers. This is similar to iPod use in the street where the earpieces signify much the same to others. The iPod works as a kind of territorial preserve; as a form of boundary marker for others. The earphones also signify the users status in the organisation - he can listen when he wants; this is not

tiered to any notion of leisure but rather to efficiency:

"By listening to music at work, I'm now using music (or rather the fact and act of listening to it) to a) block out distractions, b) send out a signal to co-workers that I am actually busy and so their interruption had better be work related, rather than just casual chat and c) prevent myself from distracting myself (sic) - I find my attention easily wanders to surfing the web or doing 'other stuff' unless I have music on. It's as though listening to music focuses me in on the task at hand." (John)

Music use, in this example, represents a 'rationalisation' of work practice, John can only be disturbed if it is a query about work, thus music reception enables him to function better in terms of his perceived tasks by helping him to focus upon his work rather than have his mind wandering off as he puts it. So, rather than music being a distraction at work, it becomes a more efficient enabler in this example. iPod users normally have to stream appropriate work music; either music that matches the type of task they are engaged in. Music that fits the bill differs from one user to the next. What unites most users is their desire for the mediated sound of music to accompany them through their working day - iPod technology appears to have produced the correct seamless environment working to music, unlike CD players that need continual attention or the radio over which the user has no control of content.

Work tasks often vie with the users fleeting moods, personal thoughts, tiredness or lack of concentration; iPod use appears to permit the user to manage these changing cognitive states. John listens to his music through headphones at work rather than plugging in his iPod to his computer thus producing his own aural cocoon within his office, a space inhabited only by him. The office itself acts as a boundary marker. Yet his use of the iPod in his office demonstrates his authority to transform his workspace into a privatised space of audition. The tell tale white headphones signify to others 'do-not disturb' unless absolutely essential. Office space is transformed into a hermetically sealed space for his own work and thoughts. He works whilst listening to a variety of rock music, classical, opera, choral and 60s motown chosen at random by his iPod.

Within this private bubble John pragmatically recognises the necessity for interaction at work so does not get too carried away in his auditory bubble:

"I'm realistic about what it means to actually live in the real world, especially at work. What I mean is: I understand that there are going to be interruptions and so there's no point in getting visibly upset. If an interruption has been particularly pointless then I'm as likely to be frustrated by it if I was listening to my iPod as if I was just sitting at my desk with no music on...When interrupted: I always switch it off (using the remote) and take an earphone out. I just think it's rude not to; in these circumstances, you've got about 10 seconds interaction with the person. You can't leave them wondering for the first 8 seconds whether or not you're listening to them. It's a question of respect really." (John)

iPod use requires a re-assessing of workplace sociability and courtesy so as not to alienate other members of staff. The obligation to interact with work colleagues is far stronger than the fragmenting rules of recognition that exist in the street or in the supermarket check out. Not all staff in John's workplace has the authority to use

²⁸ I give a fuller account of the use of music in automobiles and especially singing in the car in Bull 2004.

technologies such as the iPod, a further indication of John's status, and to the nature of his work within the company, unlike the working conditions of Bill who works as a technician in an American university. Bill shares office space with others but works primarily on his own tasks:

"By and large, it allows me to concentrate more, to remain completely inside of my thoughts as I work. I wouldn't classify it so much as "getting rid of unwanted sounds" as the work environment is relatively quiet." (Bill)

Bill's work environment is composed of workers listening to music on their iPods:

"The team of people that I work with has seven members. Six have iPods and the seventh wants one. They all use the iPod at work...I only interact with others at work to discuss design issues, and obviously those meetings aren't something I bring my iPod to." (Bill)

Office space thus becomes a series of multiple individualised soundscapes whereby workers concentrate on their work through their chosen soundtrack. Office space might also be a contested aural landscape. Amy, a 32-year-old development manager from Philadelphia, who shares office space with others, regulates her listening according to her mood and to the tasks lying ahead:

"If I'm off to work I tend to listen to something upbeat but not too overpowering, such as someone within my singer/songwriter category. Once I get to work, I usually choose something I've heard a million times so I don't mind if I'm interrupted. If I have a particularly difficult task ahead of me, I tend to choose something with a driving beat, like Soundgarden, the Matrix Soundtrack, or Rob Zombie. If I'm the last one to leave, I put on something I can sing along with, take off the headphones, and attach the iPod to my speakers." (Amy)

Work is modulated through her choice of music. Working in a busy office brings certain restrictions for Amy, as evidenced by her singing along to her music whilst listening through speakers rather than headphones when nobody else is in the office. Equally, the contingent nature of interaction in the office is understood, as is the nature of her tasks that determine whether she listens to music or not:

"When I arrive at work, I take it off for a bit until I've spoken to my staff about the day ahead, or worked out any personnel issues...[at work] I listen to it as much as I can without letting it interfere with the course of my work. On rare days I prefer silence, or don't want the feel of headphones/earbuds, so on those days I leave it off. Also, if my day is filled with meetings and/or phone calls, I'll leave it off, as it doesn't make much sense to me to keep turning it off and on." (Amy)

Continual interruption makes iPod use dysfunctional with users preferring not to listen at all. Dysfunctional because users prefer to settle into a mood through uninterrupted listening. This limits the use of privatising technologies like the iPod to certain types of task and particular workspaces. In general though Amy experiences the office as a free and continuous space of listening:

"One of my favourite moments was when I was listening to a really great song that put me in a perfect mood, and I wanted to get some more water to drink. I started taking off my headphones when it hit me: I can take the iPod to the water cooler and not miss a note! It was such a great revelation." (Amy)

The space of the workplace is thus transformed through the users ability to reinvent it as a privatised space over which she appears, rather illusionary, to have total control. There is however, very little evidence of iPod users constructing aesthetic narratives of the workplace, as they might do in the street - where many users describe the street in filmic terms. This may well be a function of their knowledge of the people around them whom they interact with on a daily basis - they are not the anonymous people inhabiting the street. Or indeed may well be a function of the rational purpose of music listening at work - to enhance the working environment.

After work, Amy maintains her mood through her use of the iPod. The rhythm of her day matches the music that she listens to and her step as she moves through her day:

"If I'm walking home, I'll put on something to either de-stress me, or something to cheer me up if it was a rough day. If I'm in the mood to take a walk around the city, I put on faster music to get my blood moving. When I'm wearing it and walking down the street, I find that I match the pace and cadence of my steps to match the music. I also find myself setting distance markers and timing my arrival to the marker to the music; for example, I'll say to myself "I'll reach that corner by the end of this song." (Amy)

iPod use not only regulates the day for users; it creates an alternative linear sense of progression to the day. From the enervating music in the morning to the wind down music after work, daily experience becomes increasingly mediated and modulated by their own chosen sounds. The world becomes mimetically 'in-tune' with the users desires and movements.

The office can also be a contested space of multiple recorded sound. Marianne a 38 year old web engineer from Berne, Switzerland shares an office with one other worker who plays commercial radio all day in the office. Marianne responds by wearing her iPod for most of the day in the office:

"During working hours I will wear my iPod as soon as I need to concentrate to something and I don't want to listen to my office mate's boring radio station! This radio station plays the same songs all day long and that's really boring. I have more choice within my iPod." (Marianne)

She varies the volume in relation to the amount of noise being made in the office:

"If my co-worker is on the phone and talks loudly, I'll increase the iPod's volume so that I won't have to hear what he's talking about (especially if it's personal). But most of the times I'll just have the music on a normal volume." (Marianne)

iPod use for Marianne is private both in terms of protecting the co-worker from

being overheard in conversation and in creating a cocoon of sound within which she works. It is also re-active in relation to an unwanted existing soundworld. Use thus empowers the user in relation to other workers - it is a post-fordist use of sound within a Fordist sound space in which one worker is being fed a diet of commercial radio, the other her randomised, yet personal playlist on the iPod. The space thus becomes two simultaneous privatised environments - one existing in radio sounds, the other in iPod sounds. Music enables Marianne to manage her workspace and also makes her feel better about herself and the world around her:

"I have sometimes the feeling that music lets me see the world around me in a "happier" or "brighter" light. I have the feeling that I'm happier when I listen to music. But I don't always "need" that to be happier. It's just that music lifts the spirits when one is a little down." (Marianne)

Whilst the use of iPods in office space is primarily a solitary exercise in listening, at times it is used as the music system for the whole office, connected to the speakers of the users computer:

"It has become the office sound system. I have a set of computer speakers hooked into it, put it on random and everyone listens to it...In the office it can be anything that takes my fancy, I think during the day at work the most played stuff is probably the 80's music, but that is more to do with the age of the people in the office." (Frank)

This demonstrates how technologies like the iPod can be used for general office use - but a use in which the workers choose which music they will potentially listen to. Yet negotiation, in this instance is also dependent upon the authority and disposition of the iPod user. In this example, there is no evidence of file sharing or collective creation of playlists. The iPod then is a dependent technology, dependent upon both the organisational practices of the workplace - and the desires of the individual worker in relation to their work colleagues.

7. Apple iPods in the Home

The dynamics of home listening are also potentially changed with the use of technologies like the Apple iPod. There is much written on the transformation of the home from a space in which all consumed the same media in the same space to one in which the home becomes a multiple consumption space with an array of televisions, radios and music systems distributed around domestic space. (Flichy 1995, Livingstone 2002) iPods can be plugged into home stereo systems working as home jukebox systems:

"I 'port' it to my home stereo system and use it to play on the radios throughout the house via the FM transmitter. When I walk from room to room, the same music is playing. It's a great low cost way to have a great stereo system." (Jeff)

The home thus becomes colonised with each room receiving the same sounds. Collectively this may, or may not, always be desirable, in which case the iPod can

be added to the armoury of domestic yet privatised listening nodules:

"I've gotten to the point that music portability is paramount to my day. I'll take my iPod into a relaxing bath. If my partner is watching TV, I'll wear it while making dinner. I'll use it to go to sleep. It's also more polite to wear my iPod while doing yard work instead of blasting my home stereo." (Ben)

"At home I only use it with the FM transmitter over my stereo. I have used it for small and large gatherings (parties) as well as when I am home alone." (Alison)

The iPod can be used to further secure both the users private space but also that of other members of the family. It would be incorrect to associate private use in private space necessarily as a form of anti-social behaviour; rather it can be construed as a way in which users respect the space of other members of the family. Yet equally collective use of domestic technologies throw open the issue of who controls domestic space that is not apparent in privatised listening modes. There is also an added dimension in homes with multiple iPods where family members file share and teach the skills necessary to download music.

Public spaces can also produce forms of collective recognition for iPod users who often see themselves in some sort of 'imaginary community':

"I also like the sense of belonging. They still enjoy rather a lot of cachet in London, and there's a sense of shared currency - you go out and meet someone in a bar who has an iPod - you can go through their playlists and build a musical profile of that person." (Joanna)

Whether this sense of belonging will endure the increasing popularity of the iPod has yet to be seen. Yet what is clear is that the iPod provides for a new spectrum of listening habits, both public and private.

8. A Cultural Coda

The Apple iPod appears to be the cultural equivalent of the Citroen DS written so elegantly about by Raymond Barthes in the nineteen fifties:

"I think that cars today are almost the exact equivalent of the great Gothic cathedrals: I mean the supreme creation of an era, conceived with passion by unknown artists, and consumed in image if not in usage by a whole population which appropriates them as a purely magical object." (Barthes 1972 p. 15)

From Gothic cathedral to Citroen DS to Apple iPod appears to represent a Western narrative of movement and privatisation. The Gothic cathedral, immobile, massive and austere, an edifice magnifying the glory of god whilst reducing the size of the individual to a mere speck on the horizon. Gothic cathedrals were the largest of man-made buildings in Europe at the time, just as the pealing of the cathedral bells were the loudest routine man-made noise that the population regularly heard.

Barthes, in his analysis of the Citroen DS, had already reduced the size and scale of the cultural icon from the size of a gothic cathedral to that of a five seater automobile - and of course, one could inhabit the Citroen in a way that you could not inhabit the cathedral - the DS was something not merely to be looked at or desired, it was something to be owned and travelled in - an icon to movement and mobility. Barthes interpretation of the Citroen DS is of a domesticated icon - this icon is however largely, although not exclusively a visually orientated one - whilst Barthes brief description of Gothic cathedrals is certainly visually based. Yet a parallel cultural history can be discerned and developed from Barthes sharp insights concerning the development of a Western aesthetic. Gothic cathedrals were not merely to be looked at or to be prayed in in silence - they were also cathedrals of sound in which the edifying sounds of music reverberated through those massive spaces. The populace invariably went into these spaces not merely to pray but to listen to the grandeur of religion as evoked by the music resounding through the great arches of the cathedral - music itself was representative of the grandeur of vision of the day.

Yet just as Barthes had reduced the size cultural icon of the 1950s from that of a Gothic cathedral to that of a five seater automobile, so at the beginning of the 21st century, the cathedral of sound now exists in the head and mind of the iPod user - the spaces of culture have been redrawn into a largely, but not exclusively private, and mobile, auditory worship. The Apple iPod appears to be the 21st century's first cultural icon and as such a potent metaphor for much urban life.

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