

# The metamorphosis of music-listening and the (alleged) obliteration of the aura

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## Introduction

Peer-to-peer-based (p2p-based) file-sharing is but one part of a wider process of digitisation of media content. However, file-sharing in its current mode (most notably facilitated by protocols/applications such as BitTorrent, Gnutella, SoulSeek, and DirectConnect) is one of the most notable, controversial aspects of digitisation of media content, in two central respects: Firstly, that it is so widely established as a *user-led* media distribution infrastructure and secondly that the absolute majority of content circulated effectively does so *in violation of international copyrights*. As this paper was written for a conference on popular music, I will mainly focus on this musical content, primarily in the form of mp3 files. Music, encoded as discrete mp3 files, was also the particular artefact that ‘broke the mould’ for the debate on file-sharing, as the infamous Napster application surfaced around the turn of the millennium. Since then, various applications and networks have come and gone, yet the overall situation of a general condition of ubiquitous, mass-scale, widespread, unregulated sharing seems to have been consolidated, prompting arguments – both among commentators and among the file-sharers themselves – of a latent ‘inevitability’ or ‘unstoppability’ of sharing. While technology remains unequally distributed throughout the world, I will concentrate on those parts of the Western world where it has over the last decade become arguable that file-sharing is the new norm for cultural consumption when it comes to ‘previewing’ films or TV series and for acquiring discographies of musical material, or for making available one’s own personal media archive to others in a convenient way. This is especially the case in younger demographic groups in countries like Britain and Sweden, where I have conducted my empirical research.

This wider process of intensified, more convenient technical reproducibility of audiovisual material can be directly related to Walter Benjamin’s famous essay from 1935 which is often referred to as ‘The Work of Art in the Age of Mechanical Reproduction’. As with Benjamin’s pioneering understanding of film in the 1930s, the present era of digitisation constitutes a delicate conundrum where radical, potentially disruptive technologies seem to exacerbate some interesting changes and discontinuities in our relations to media materiality, especially if we problematise the often taken-for-granted notions of ‘content’ and, respectively, ‘carrier’.

As always, when questions are raised concerning the issue whether technology is said to exacerbate changes or act upon patterns of experience and discourse, the issue of technological determinism is a central one. My own interpretation of this issue is one that is primarily influenced by the growing field of science and technology studies (STS) in general, and those theories that problematise technological agency in particular (most notably, actor-network theory and post-humanism). One key insight that can be gathered from these bodies of theory is that when revisiting the age-old debates around technological determinism and social constructionism it is helpful to accept a view of agency that is akin to Michel Foucault’s famous conception of power and knowledge. In

short, we need to heed the fact that agency (like power and knowledge) only arises in interactions, and should not be regarded as something being exclusively held by any one actor. The screwdriver can only gain functionality as a screwdriver by being used by a human user, and similarly the human user cannot attach his/her screw without the screwdriver. Simultaneously, the screwdriver is a concoction of intended uses and purposes, plans and designs; an upshot of an entire genealogy of engineers and toolmakers preceding it. However, that does not restrict its use in any absolute way; it can still be re-appropriated in wholly new ways (given some material limitations, of course). Said screwdriver can for example be used to kill someone or to make music for that sake – but it cannot hover.

A discursive position is generally dubbed ‘technological determinism’ when the person being accused for this position is thought to ascribe too much agency to the non-human actors. When mapping the sociology of any context that is defined by ‘the technical’ as much as ‘the social’ (Law, 1991: 8), one cannot presume the primacy of one mode of agency over the other and thus we have to treat technical and social factors symmetrically. It should be seen to be equally biased to ascribe too much agency human subjects. Hence, the debate entails a delicate balance: whoever making the accusation of technological determinism or social constructionism must first consider his/her own conception of agency and his/her own notion of when an object ceases to be social and begins to be technological. Timothy Dean Taylor, who also writes about music with reference to STS and technological determinism, points out that ‘one of the ways technology works in Western culture is to call attention to itself when new’ but that after a period of use, ‘most technological artefacts are normalised into everyday life and no longer seen as “technological” at all, while whatever is new becomes viewed as “technological”’ (2001: 6).

Such distinctions can only be made discursively, and my own proviso for this article is that technology for me is no less human or social than any other anthropological or sociological factor. Instead of debating whether something is allegedly technological or social, what is more interesting is how the agency is configured – or, to borrow a concept utilised by Tia DeNora (2000), how different technologies allow certain affordances that earlier ones would not allow in the same way. The scope of this paper is thus a rather tentative one; I am not intending to reach some fundamental, eternal answers, but to sketch on some emerging themes and ways of understanding digitisation in a broader sense – not only in relation to music, but also to cultural studies and semiotics at large.

## Background

Peer-to-peer-based (p2p-based) file-sharing has become a very recognisable topic throughout the last years, especially due to its controversial legal ramifications. Thousands of users have been prosecuted by the entertainment industry<sup>1</sup> while websites and applications that facilitate sharing have been forcibly closed down. Between the initial presentation of this paper (2006) and its publication (2009) the famous Swedish file-sharing site The Pirate Bay was raided by the police (31 May 2006) with the founders of the site subsequently found guilty of abetting copyright infringement in the Stockholm district court (17 April 2009, appeals currently pending). Such legal clampdowns are merely fractional, however, compared to how widespread the phenomenon is in global terms: already by the early years of this decade, it was estimated that more than 50 million individuals had used file-sharing applications in the U.S. alone (Miller 2001: 114-122; Hosein et al 2003: 89) and between 100 and 200 million worldwide. In Sweden, it is estimated that at least one million people regularly file-share (in the narrower, legally controversial sense of the word). This amounts to more than a tenth of the country’s total population.

A study by music industry group British Music Rights showed that 95% of the people surveyed (aged 14 or over) had engaged in some form of copying. Around 90% of the surveyed youths owned personal mp3 players, and 63% ‘download music using unlicensed peer-to-peer file-sharing networks’ (BMR, 2008). According to a Gothenburg University survey, 68% of Swedish males aged 15-29 had downloaded a film from the Internet in 2006, compared to 57% in 2005 (Antoni, 2007). The survey also showed a correlation between high cinema-going and high rates of file-sharing. This was also confirmed by the Swedish ‘MusicLessons’ study, and by surveys like the one by British consumer research agency The Leading Question (2005), which found that those who admittedly downloaded or shared unlicensed music on a regular basis also spent significantly more money on legal services<sup>2</sup>. Avid file-sharers tend to be avid consumers of paid content as well, but while for example the Swedish cinema industry and DVD retail sales have stayed healthy, global CD sales have slumped in the last decade. It remains an economic problem as to how, and to what degree unregulated acquisitions of content would replace potential sales.

The phenomenon on the whole continues to be labelled illegal<sup>3</sup>. People are being prosecuted; end-users as well as service providers. Laws are passed that grant authorities and commercial entities expanded powers in terms of surveillance and policing. The implementation of the EU-wide Intellectual Property Rights Enforcement Direc-

tive (IPRED), for example, has led to several lawsuits (and in Denmark, allegedly even a suicide<sup>4</sup>). Although the topic might seem very technical or abstract, it has had real political repercussions and significant political mobilisation has risen against further regulation. Even in countries with repressive laws against illegal file-sharing, the activity has continued largely unabated: some figures even indicate a continued increase in actual file-sharing, despite tightened laws. People continue to file-share for various reasons, despite the global media industries' branding of these consumers' activities as morally wrong, illegal, and dangerous. Much of the battle has taken place in the mainstream media – a 'PR war' one might say – over which discourse, which order of interpretation or representation is to dominate this technology.

An early example was how the Swedish Piratbyrån spokesman Kristoffer Smedlund noted in an interview that he saw a 'huge gap' between what the law states and what the users of the file-sharing networks actually think is morally right (Kittel, 2004). The IFPI spokesman Magnus Mårtensson, who was interviewed in the same article, explained that 'we actually don't know what the file-sharers think' (Kittel, 2004). However, both parties seemed to suspect that 'illegal' sharing has made an entire generation used to 'try before you buy' and that illegal sharing prefigures a continued consumption of music and film that has the potential to render profitable opportunities for a reformed entertainment industry.

It still is the case that, in most discourses on file-sharing, the user has been largely absent. This is odd, given that the technology so clearly relies on the end-user. In their abundance, the users are the human agents that, together with the technical protocols and material settings, come to constitute this phenomenon. The technology of file-sharing is directly dependent on mass aggregation, arguably more markedly so than many other Internet technologies: without peers, there is literally no peer-to-peer network.

The focus of my own research has therefore been on the users, both in terms of the particular materiality of file-sharing and the discourses in circulation. To further narrow and delimit my research, my qualitative, grounded account of the (situated) accounts of the users themselves was limited to p2p-based file-sharing in Sweden. In this geographic context, broadband is well established and file-sharing has been fervently debated in the last years. The public debate has relied on an over-arching dichotomy of 'pirates' versus 'industry' as the issue tends to be represented by spokespeople on the respective side; note for example the presence in Sweden of both a Pirate Party, the Piratbyrån think-tank, as well as The Pirate Bay. In the 2009 election to the European Parliament, the Pirate Party rose to international fame by winning a Swedish seat (after getting 7 % of the votes).

My research is largely based on a sequence of interviews with Swedish file-sharers, conducted in 2006. My central focus was on how these file-sharers justify their activities in the light of this current 'copyright' polarisation; how the discourses of pro-file-sharing sites, forums, and blogs, as well as the discourses of the file-sharers themselves seem to rely on a number of specific, largely consensual understandings of the nature of digital content; the nature of digitally mediated consumption, and the nature of the actors involved. Among these file-sharers, illicitly downloaded content was the norm rather than the exception. According to my observations, p2p-based file-sharing is now so widespread in Sweden that the file-sharing demographic in question are beginning to make up a population quite similar to the 'conventional' music and movie audiences.

One of my main arguments so far is that the individual user rationales and understandings of file-sharing on the one hand rely upon, and on the other hand challenge idealistic presumptions and norm systems surrounding the phenomenon, like the dichotomised notion of a 'copyright' in itself (once again, this investigation is constantly based in the material actuality of their use). The aim of my thesis is to explore in what ways this dialectic is played out, and where it leaves us in terms of aspiring to describe the phenomenon in a richer, more level-headed but also further problematised, more analytically forceful way.

## The musical object in an era of digitisation

One notion that is popular among the proponents of file-sharing, and among some of the file-sharers that I interviewed, is a normative argument that can be summarily condensed to this standpoint: *'Music is essentially information → information flows freely on the Internet → information cannot be regulated → information should not be regulated'*. There is a slogan that summarises this standpoint and it is one that hackers have kept at heart since the 1980s: 'information wants to be free'.

This argument is deeply rooted on the Internet and among its users. Its genealogy can be traced directly to the libertarian stance of early Internet pioneers like John Perry Barlow, Neal Stephenson, Vinton Cerf and the early cyber-punks. It is based in an understanding of the Internet as a heterogeneous, omni-directional (many-to-many) plethora of networks, connecting together machines that can read and write, receive and send, duplicate and self-

transform. These are the core properties of the Internet, and they are currently expressed in probably their most radical form in p2p-based applications and the new wave of Internet technologies headed under the buzzword 'web 2.0'. The slogan 'information wants to be free' constitutes an onto-political positioning which aims to define what the Internet *is*; the very nature of its mode of communication. Further, by the act of defining these properties, this definition becomes a performative act of normatively arguing for what it *should* be. Thus, as my research will emphasise, the very act of explaining and defining file-sharing is not a plainly descriptive one. It becomes highly normative and, in the context of the current policies of the global media industry, political.

With entirely digitised media content, we still cannot say which metaphors are the most appropriate. Should we, for example, see mp3 files essentially as *artefacts* – objects to be stored, bought and sold, as in the Apple iTunes business model – or should we, as the Internet libertarians who argue against the entertainment industry tend to argue, see them more as *flow*, or *ether* – streams of ones and zeros, chunks of data, more similar to radio than compact discs? The fight over these metaphors, the appropriate language with which we try mirroring material reality, is a political fight.

### Mp3s: fostering passive apathy or active non-compliance?

The 1990s was arguably the last decade when pop music was primarily artefact-based. The compact disc as a commodity and as a carrier was reigning supreme, and the norm system worked in favour of the entertainment industry. However, our relation to music has gradually changed to an era of seemingly less rigid adherence to this norm – at least among the many people that nowadays tend to listen to mp3s, not CDs.

An argument in response to this change has been that music now is more ubiquitous, but arguably also less meaningful: 'File-sharing makes young people apathetic' a group of English psychologists based at University of Leicester concluded (BBC, 2006). Free and instant music becomes a habit and taken-for-granted when individual collections comprise tens of thousands of songs.

The almost limitless access to music via the Internet has fostered the 'iPod generation' catchphrase, alluding to what supposedly is passive listening; people who do not take music as seriously as previous generations, who do not get impressed by new musical discoveries, who lack deep emotional engagement. For any reader of the Frankfurt school, this lament is anything but new. Both when Walter Benjamin analysed the consequences of technical reproduction in the 1930s, and when British psychologists today conduct empirical studies on music listeners to see how they cope with a fully digitised nature of reproduction, the result seems to be formulated in the same way: the 'aura' is lost. Some kind of de-mystification of the previously so worshipped work of art, or, in this case, of the exclusivity of the CD is purported. This is what most likely leads a heavily fan-orientated music magazine like *The Stool Pigeon* to lament:

Has anyone ever been to your home, been sat down in front of your computer and shown a folder full of files and then remarked, "Wow, where do you get them all from?" Of course not, but when people see my records for the first time, they do. This doesn't make me a greater person, you understand; my point is that old vinyl has magical appeal ... Do any of your mp3 files have a tale attached? The best you could say is that some were emailed from a lover or Bluetoothed from a stranger. But you can take that file, copy and paste it over and over until your hard drive was full, and all you'd have was more identical files, precisely replicated. That's not music; that's a *virus* (Bone Dagger, 2008, emphasis in original<sup>5</sup>).

As with Benjamin describing how art theorists in the early 20<sup>th</sup> century (Abel Gance, Alexandre Arnoux) tried to understand the new phenomenon of film in the language of reverential art works, we can note how contemporary scholars like Adrian North (University of Leicester) is trying to understand the new phenomenon of digitisation of music. After having interviewed 346 people, North conveys the reception of digital music in terms of *passivity*, *low degrees of emotional investment*, and what could be described as a form of 'taken-for-granted-ness'; an *expectation to get*, or *non-astonishment* or '*unsurprisedness*' of *acquisition*, perhaps even leading to an *under-valuation* of the artefact itself. On the whole, North provides rather negative descriptions, he writes:

Getting access to music is so easy now ... But this tremendous supply has meant listening to music is no longer a pastime but has become more of a habit. People are taking music for granted ... The data suggests that on most occasions when participants chose to listen music, they did so with little thought and seemed to opt deliberately to be subjected to a form of 'sonic wallpaper' that formed the undemanding backdrop to some other task. More simply there is a generally unengaged attitude towards the music (North, in Gray 2005).



This can be interpreted as a nostalgic appraisal of the remaining 'aura' that resided in the fact that the music on the record bought was, even if not the least unique, encapsulated within a physical artefact. The record was an active choice that had been made at the expense of some other record.

One of the leading proponents of file-sharing in Sweden, Rasmus Fleischer (Piratbyrån), entirely disagrees with this negative framing of the phenomenon (and it was his erudite critique which partially inspired me to focus on these issues in the first case). File-sharing, he maintains, fosters an entirely new degree of *non-compliance* towards music – something that might be misinterpreted by those who are still stuck in an 'artefactual' frame of mind as lack of care or of emotional investment. But for those who use the constantly accessible p2p networks and streamed media like YouTube and Spotify<sup>6</sup>, music is not an artefact: it is increasingly a resource available 'on tap' as if it were. This has had repercussions in sheer archival terms. As an archive, Wolfgang Ernst (2002) argues, the Internet is a tool for constant transmission and circulation rather than a spatial place or space; a technological *practice* for storage, available for occasional retrieval, rather than a tangible historical memory. On the p2p networks, content is never guaranteed to be accessible; a certain text is only found if enough users opt to make it available. Its availability is ultimately a result of its statistical popularity and the voluntary, distributed goodwill of the registered users currently online at that point in time.

To literally throw music in the recycle bin is now a common pastime. It would be interesting to see a quantitative study of how large a percentage of the mp3 files illicitly acquired by a user are routinely scrapped or rejected. What needs to be noted with this form of non-compliance is its highly active, selective nature. Although requiring significantly less of an investment in traditional monetary terms, it requires some form of cognitive and aesthetic investment. Digital content sees an inherent reliance on metadata; tagging, browsing, indexing, recommendations, and active search queries for finding the content in the first place. Without this context-giving metadata, the strings of digital code would be as mute as they are variable and re-combinatory in the first place.

This reliance on context and active user involvement indicates that the passion would not have died alongside the aura. Arguably the involvement, or cognitive investment, could be said to have started operating on a form of meta-level alongside, or outside of, the actual recordings (as the meta-data of an mp3 file – the 'file header' – are contained in a string of data somewhat extraneous, yet attached to the string containing the encoded audio). Still, it would be a hurried, if not entirely misguided conclusion to assume that interest in music *in general* would have dropped. The presently successful concert industry is a good case in point, and perhaps even more so the numerous new technologies integral to the infrastructure of digitised music that Dan Hill points to in an ambitious argument (Hill, 2006). Sales of music hardware have rarely been more buoyant, and the accumulated profits of international conglomerates like Universal have continued to be abundant.

Hill, head of Interactive Technology and Design at BBC Radio and Music Interactive, lists numerous examples of horizontally networked music recommendations and exchanges, enabled by digital technology: p2p-based file-sharing, mp3 blogs; podcasting; Last.FM; Pandora.com; Wikipedia; MySpace; aggregators such as metacritic.com; specialist shops (boomkat.com, turntablelab.com); record labels bypassing "middle-men" in their distribution (hybrism.com). These contemporary technologies he label as forms of 'heterogenous, software-based, networked organisation of information, constructed in emergent fashion from a multiplicity of voices' (Hill, 2006). What he describes is a shift in focus from sales of recorded phonography and its contemporary equivalents to the opportunities and challenges in music experience in general. It is a call for more innovative and intuitive approach to music, hoping to 'synthesise the metadata with the data, the experience with the context, in ways which reinforce and enhance both' (Hill, 2006). Hill argues that this will enrich 'the social ritual of music' which for decades was subjected to the normative homogeneity of phonography (as Evan Eisenberg and other authors have argued) (Hill, 2006).

## The art of listening

To Adrian North's defence, he is primarily talking about listening and the development of an 'unengaged attitude' among those whose music listening habits are synonymous with mp3. He does not explicitly seem to be discussing the loss of an 'aura' due to a decline in reliance upon physical artefacts like CDs and vinyl, but his findings make a good starting point for a discussion of how changes in seemingly external issues of distribution and acquisition are of relevance for anyone interested in those more experiential dimensions of listening, engagement and valuation that are often seen as internal to the music itself. For, in reality, these aspects of listening arise out of an engagement with the music that is both situated and contingent on its immediate context. It is thus worth looking at how

the subjective experience of engagement, valuation, and potential emancipation that lies in the act of listening is intrinsically bound to both internal and external conditions of this act.

In comparison to traditional radio (see for example Crisell, 1986) the digital services' increased opportunities for instant choice would give the user the impression that they are more in control than before. In this sense, these interfaces – be they the private, minute interfaces of our portable mp3 players or the more collective experiences of YouTube, MySpace, Spotify, and p2p file-sharing sites and communities – present an interactivity which interrupts the relative unpredictability and 'blindness' that Crisell points out as typical for traditional radio (1986: 3). With services like MySpace, Last.FM and especially Spotify, the traditional broadcasters' scattershot, 'blind' flow that worked as a literal catch-all (and thus often became pejoratively nicknamed 'middle of the road') is visibly broken up by the instant choices that the users can make, not only between pre-ordained play-lists or channels, but even down to the level of the particular song. The music streaming service Spotify might more than any other such tool point to this crucial difference, as it works as a rather sophisticated radio-on-demand with an interface directly premised on Apple's nimble iTunes one. The only limitation aside from the inquisitiveness of the listener is the breadth of its catalogue of collected songs available, as it is limited by copyright restrictions that are both temporal and regional.

This limiting aspect of copyright makes the supposed interactivity of digital music distribution systems Janus-faced. In fact, here is where we find the crucial difference between the unrestricted, potentially limitless p2p networks (so limitless that they become illegal) and the commercial streaming services, premised on the traditional model of a delimited, finite archive. Instead of the living, utopian archives that Ernst (2002) describes, or the 'collective intelligence' of Pierre Lévy (1997), the regional, license-bound restrictions of copyright act as a topological reclaiming of the potentially non-topological storage practice of the Internet. Hence, the interactivity of radio-on-demand services like Spotify is relative and by no means absolute. In fact, the supposedly 'endless' interactivity of such services could be argued to *conceal* the definite limitations that are imposed by such copyright restrictions. However, this ability to conceal should by no means be underestimated. The interfaces are so good and so intuitive that the potential for discovering entirely new artists and songs purely by straying past one's original play-list or artist page is quite extraordinary, despite the fact that the iTunes Store, Spotify and MySpace are severely limited in other aspects.

What is more, these services have a weird thing in common with hard disk crashes which illustrates yet another aspect of digitisation. In my own research, the respondents were acutely aware of the ephemeral nature of the digital data; your hard disk will ultimately crash, your mobile phone will ultimately be replaced, and your computer inevitably begins to fail after a longer period of use. Unless regular backups are made, it is cumbersome to recreate one's musical library or technical configurations for listening. Hence, digitised music is more clearly felt as fleeting, rather than as encoded into durable artefacts. In fact, several file-sharers have repeatedly suggested that collective file indexes like The Pirate Bay for them serve as vast 'backups'; latent archives of software and cultural content that can be tapped into and utilised in case they find themselves in need of a particular file. Similarly, streaming services like Spotify are believed to make the need for stationary data redundant.

Materially, mp3 files are thus not worth much at all, and to speak of a supposed 'aura' of the artefact is therefore questionable. However, as an experience, a memory, or as a marker of a specific time in life, the *song* itself remains manifestly important.

The increased interactivity of digital interfaces thus lays bare what Tia DeNora would call the 'affordance structure' of music 'as something acted with and acted upon' (2003: 48). The experience arises out of what the listener affords to invest in the music, and vice versa: what the music affords to give up in order to generate instant affect. As with the early 1960s 'wall of sound' era's super-compression and its compacted, transistor radio-friendly, mono-friendly choruses, one could ask if there is a risk here that certain affordances are enacted in the music which make certain kinds of productions more easily attainable and more susceptible to instant affect. Songs would in this sense be produced to be 'stickier' or 'equipped with claws and hooks' as if it were. Take for example the minutiae of how the mastering of contemporary pop music entails significantly louder signals, and compare how an older or more modestly compressed production easily 'loses out' when placed tail-to-tail in an online play-list with competing songs that each have punishing rates of compression and therefore extreme loudness.

What ultimately connects the digital listening experience with the analogue set, however, is that it is premised on *solitary* listening. As Crisell describes radio, 'although its audiences may be counted in the millions the medium addresses itself very much to the *individual*' (1986: 13, emphasis in original). This is perhaps even truer for the digital listening experience. Thus every listener can rest assured in the reflexive knowledge that their own path of choices – regardless of how arid, stale and predictable the menu of options is – becomes a unique composite, not similar to any one else's play-list. Even if the user tends to listen to shared, preordained play-lists, their experience

becomes unique over time, as no one else listens to the exact same combination of play-lists. This reflexive insight allows every listener to claim that their choices would *not* be part of some predictable 'sonic wallpaper' as in the old days of FM radio. But equally, as is argued by Cave (2004) and DiCola (2006) with regard to the takeover by ClearChannel in many U.S. American cities, it might just blind them to the fact that the play-lists and menus from which this abundance of choice stems might be more predictable, controlled, and arid than ever. Does all this act to reinforce or challenge the highly individual thrust that digital media can be assumed to carry? This is a fertile area for future audience studies, as more empirical data is clearly needed.

## Returning to the problem of context

What might be problematic with these new, more ubiquitous approaches to music, Hill argues, is the process of relative *de-contextualisation* that appears to be implicit in them. What he refers to is something much more physical than the above notion of meta-data; the context Hill sees as missing from the new, shiny world of digital music comes with its relative lack of *tactile* cues. He takes the iPod Shuffle as an example: here, there are no visuals at all, no screen to display any contextual information whatsoever. Like the meta-data being ontologically separate from the stream of audio, the tactile dimension of music artefacts becomes abstracted, somewhat extraneous to the musical score itself: it becomes a function of the machines for playing music, rather than a tactile result of the analogue engraving of waveforms. 'Witness the marketing around the iPods and we can see that visual seduction is now at the device level, not with the music. The design of the device is what people covet, rather than the design around music itself' (Hill, 2006). We also see this with mobile phones; the merger of Sony with Ericsson should be a case in point of this type of convergence.

Overall, we can note an increasing separation of context from experience, via either a diminution or complete absence of a physical interaction or visual and textual information around music. But if we're seeing a shift away from traditional music experience hardware, and the physical artefacts around music, we're also seeing a shift towards a new kind of contextual music experience; an experience which is software-based and increasingly social (Hill 2006).

Benjamin, a self-confessed avid collector, (some would say fetishist) of books, trinkets and paraphernalia, would most likely have emphasised this as well. Cultural Studies scholar Esther Leslie notes how Benjamin traced a historical lineage from the 19<sup>th</sup> century as an age of the *optical* flâneur and contemplative art viewer, to the 20<sup>th</sup> century as an age of the *tactical* collector and immersive cinema-goer (Leslie, 1999: 79). In the light of this somewhat condensed, linear historiography perhaps our present digital era would constitute a return partly to the optical (conspicuous/visual), partly to an entirely new, non-compliant, casual yet deliberating, knowledge-demanding, socially distributed mode of consumption. I would argue that this latter mode of consumption is an upshot of the new, digital media technologies in that they – in their present form – seem to force a mode of consumption that is calculated, in some sense deliberating, relying on an active search based on previous skill and knowledge, and based on personal recommendations and social networks. It is a mode of acquisition that becomes perhaps more pro-active than re-active, especially so in the case of the legally unlimited, unrestricted p2p services. In this equation, the role of the consumer changes from tactically choosing from a predefined menu of content 'blindly' pushed their way, to a consumption that could be labelled *strategic*: pulling content from the surrounding environment and actively building new configurations of choice (for example play-lists, mp3 blogs, or entire user-driven indexes like The Pirate Bay) which anticipate any attempts from the content industry to mould taste preferences ahead of the consumer. Hence, the unease within the entertainment industry of trying to anticipate consumer preferences, and thus the increasing attempts at recapturing a strategic upper hand by trying to predict consumer motility (through pattern recognition, data mining etc).

There has been talk recently about how the new media landscape fosters a media consumption that is largely caught up in a mode of constant premonition. The file-sharers I have interviewed repeatedly emphasised the notion of the 'preview'. Downloaded files are here seen as harbingers of whether to spend money on future product or not. Swedish marketing guru Micael Dahmén (2008) has coined the term 'nextopia': a society of constant expectation. Analysing traffic data for pattern recognition is becoming commonplace in a marketplace where all customer movements are to a large extent traceable and measurable: *given that customer X likes these things already, what can we expect them to like tomorrow?* Previews, trailers, reading and listening tips all make part of this 'nextopia'. With the Internet lacking any form of complete oversight, and rather being a highly segmented, striated space, more akin to an endless labyrinth of interconnected rooms than to an open agora or town square, one has to crawl aimlessly<sup>7</sup> and/or rely on precursory, active searches. Both of these endeavours rely on previous individual

knowledge and skill. Strategic advantage is gained by the production of spaces that harness these discrete activities (most often by way of numeric aggregation) and make them apparent. Thereby activities which would otherwise remain separate and distinct are compiled to become both normatively significant and commercially useable. This is what unifies iTunes and The Pirate Bay; they both function by amassing otherwise discrete instances of user behaviour, and thereby these entities garner not only operational weight, but statistical significance and commercial profitability. By revealing and publicly re-connecting otherwise discrete instances of activity, they take on a strategic character (cf. Andersson, 2009).

Following Hill's argument, these protocol-based, traceability-increasing entities that become so strategically important in this era of technical reproduction (search engines, indexes, social networks and so on) share one important feature with the gadgets, consoles, and music machines he also mentions. Both act as *tools of art*; a category which should be distinguished from *works of art*. The engines by which we fetch content; the aggregators by which we juxtapose different types of content against each other; the modulators by which we filter, change and adapt content; and, ultimately, the universality of the computer as a modular, highly recombinatory machine often blurs the distinction of what is a 'tool' or what is an 'artefact,' or allows the respective functions to cross-fade into one another. An iTunes play-list is a physical artefact for playback, but it also becomes a protocol for re-combinatory uses of music and meta-data. Once again, one cannot leave out the significant degree of labour involved by the user as active subject, to the extent that the term 'consumer' might be discarded altogether due to the finalistic connotations of this term: the 'user' is not a terminus but a further starting point for the circulation of a cultural product, while 'consumption' implies ingestion and/or disposal. The re-production and re-distribution emanating from this contemporary user implies a more premeditated, orchestrated effort; strategically picking up the pieces by which one can creatively make not only bricolage, but more tellingly for this era, *derivatives* of content. This need not be very premeditated or strenuous, however, since it can be automated as an integrated, transparent function of the technology itself. Thus, from my mp3 play-list I might use the metadata (artist and song names for instance) to make an RSS feed which can be used by an aggregator to compare my variety in taste to the online 'data cloud' of yet more aggregated metadata. From this information someone else might construct a new application which, for example, helps me match new friends on a social network.

### Is this progress? The historical contingency of the commodity itself

The notion that ours is increasingly a control society, in the sense outlined by Gilles Deleuze (1990) in his famous postscript, haunts the observer of these increasingly machine-reliant, protocol-based logics of monitoring and regulation of action. The situation appears to be one where the work of art has not only become robbed of its aura, but of its immediate context as well. It could be argued that this has occurred with music in several aspects. Firstly, its place in the archive<sup>8</sup> (from having been put on a shelf to now being an ever-changing entry in a database); secondly, its place in the sequence of playback (from having been a vinyl record picked from a milk crate into a DJ set to being a mathematically invoked selection from the database); and finally its place as a collectible (not being rare due to the material scarcity of its *signifier*, but rather in the original song's capacity as the *signified*).

Walter Benjamin appreciated the coming obliteration of the aura. Being a progressive, far from technophobic scholar, he saw it as something that must be welcomed, especially if one holds that much of its obliteration follows from historical logics larger than the situated observer. The British psychologists' observation that digital music becomes a habit, something one merely keeps in the background, can serve as a reminder of how Benjamin contrasted two approaches to interpreting art. We can on the one hand find the Kantian, detached mode of *contemplation* in front of a painting, and on the other hand we find architecture as an example of art which is received in a routine-based, *immersive*, tactile way. Perhaps the search for a work's 'aura' should ultimately be regarded a project of early modernity, and, as such, anachronistic already at the time of Benjamin writing his famous essay.

To begin with, the concept of contemplative/exhibitive 'art' itself is a product of the late 18<sup>th</sup> century. As Benjamin points out, this concept was severely challenged by non-contemplative and reproducible art forms which emerged during the 20<sup>th</sup> century (like Dadaism but even more forcefully so, commercial film and photography). In his 1935 essay he notes how the distinction between author (producer) and public (consumer) is disintegrating, essentially by a democratisation of mass culture where readers become writers themselves. This is a process coupled with the distinction between 'high' and 'low' culture that has been the staple for conservative cultural commentators throughout the era of late modernity. All too often this distinction has been articulated by a longing for artworks of the past, where these are understood as containing the sought-after 'aura', and by a longing for an authoritative, clear-cut role for the author/producer. Perhaps we are talking about a Hegelian longing for the



absolute, the universal, here? We should not overlook the human need for finding consolation in the authority of an absolute testament, a need which is thoroughly documented throughout history. However, this quasi-religious need might as well be argued to lead us into the temptation of contemplation and veneration of objects of art – serious forms of commodity fetishism and cultism.

Max Pensky (2004) shows how Benjamin's writing served as a means to evolve the dialectic inherited from Marx and Hegel between materialism and idealism, objectivism and subjectivism, while locating it in a framework which remains ruthlessly historically contingent. Benjamin was a pioneer in eschewing the Marxist division between economy (the material) and culture (the symbolic), in favour of *a dialectics of the commodity itself*; the ways in which the distinctive cultural expressions of an epoch are simultaneously material *and* symbolic, containing imminent futures both hellish *and* utopian (Pensky 2004: 182). In the commodity (and for that sake, the work of art) we find the expression both of the Marxist sublimation of the *subject into an object* – the reification of alienated industrial labour, 'life becoming matter' – and paradoxically also of the process of *object becoming subject* – commodity fetishism, 'matter becoming alive'.

Alexander Galloway (2004) notes how the era of digital distribution allows these two transformations to be moving in opposite directions while in fact foreshadowing the era of control societies organised by protocol. We are seeing both artificial life forms (matter becoming life) and life as medium (life becoming matter; (c.f. Galloway, 2004: 87-115). This dualism is immanent to Benjamin's fundamental recognition of *experience as being technological*, and how experience itself changes with the historical development of technology. According to several scholars, this experience was indeed what prompted Benjamin to write in the first place. A central theme in Benjamin is the generational struggle of technologies; how a nascent technological organisation of experience is dominated by obsolete models that strive to perpetuate themselves (Caygill, 1998: 96). The ruptures in material conditions exacerbate and make visible, while sustaining and even foreshadowing certain tendencies. Underlying tendencies may remain comparable, yet the capitalism of the 19<sup>th</sup> century Paris arcades (a 'kingdom of sense' in Friedrich Kittler's terms) is undoubtedly a different historical-material setting than the technocratic capitalism of the 20<sup>th</sup> century (a 'kingdom of pattern') or, for that sake, the capitalism of the 21<sup>st</sup> century file-sharing networks (the kingdom of which it is our task to bring into light).

## A 'uniqueness without aura'? The question of value

Yet can we not speak of absoluteness or uniqueness, or veneration of a cultural object without falling into the deluding traps of distanced contemplation or the belief in an aura? The Italian philosopher Paolo Virno calls for a reconsideration, if not a full uprooting of the concept of aura, essentially because uniqueness could be understood in a less essentialist way, more appropriate for today's era of instant duplication of digital content and democracy of cultural production.

I maintain that today what is possible and should be written is a contemporary version of Benjamin's essay on technical reproduction, assuming one has the background from which it is possible to appreciate all that is singular and unrepeatable in every human existence. If reproduction once suppressed the aura linked to the uniqueness of the work, today it is necessary to think the link between the technical reproduction of every aspect of experience and the emergence of a uniqueness without aura (Virno, in Joseph, 2005).

Essentially, aura is to do with the question of how to *value* objects of culture (or, more specifically, in the context of this essay and for clarity of examples, music). I say 'object', and let us for one moment cast aside the rejection of digital files as artefacts above and consider the digital object an object on its own terms<sup>9</sup>, since I hold that it is something *finite, unique and concrete*<sup>10</sup> – in other words, an object.

'Aura' is a term which borders on mysticism. Benjamin traces the term to a form of distancing that lends authority and authenticity to an object; something which is intrinsic to its ritual quality, or cult value, and which is dependent on its uniqueness and reproducibility. I believe that in order to be clearer about the concept of uniqueness, we need to consider how objects can be unique in two different ways, by using Ferdinand de Saussure's distinction between signifier and signified.

The traditional, commonsensical understanding of 'uniqueness' is as *the spatiotemporal specificity of the (one) signifier*. However, digital reproducibility forces us to consider the uniqueness also of the signified. Thus, we could (for example) use the term 'character' for *that which distinguishes one signified from another*. Eisenberg writes about the 'haecceity', or 'thisness' of an object (1987: 41); the form of uniqueness that makes, for example, a dub version of a track perhaps only marginally yet still uniquely different from the original version – regardless of medium,

shape, or wear of the carrier. This distinction of differing types of uniqueness has significance when we try to decipher how digitisation operates in relation to differing scales of value; a distinction which I will turn to below.

In relation to an alleged ideal type of *analogue* reproduction (analogous, but always susceptible to decay) versus the ideal type of *digital* reproduction (non-decaying, but always an approximate<sup>11</sup>) we can observe the following (and I assume Benjamin would too being the passionate collector that he was). It makes sense to own several of the same analogue signifier; these objects will all be somewhat different from each other, and this is the principle that propels the fetishism of every true collector. However, in this mode of idealised interpretation of analogue versus digital, it does not make sense to own several copies of the same digital signifier; these signifiers will all be identical to each other, given that they share the same code (and hence the same signified). Compared to the example of making multiple photographs from the same negative, digitisation would here comprise an even more radical duplication: with digital files, that which is duplicated is the very negative *itself* – or the mathematical instructions as to how to reconstitute that negative.

This latter condition returns the emphasis to the character or haecceity of the object; a renewed focus on the signified. However, this distinction between analogue and digital relies on an idealised understanding of digitised materiality. As N. Katherine Hayles (1999) underscores in her brilliant essay on the condition of virtuality, the separation of content (information) from carrier (matter) is an idealised notion, ultimately relying on the age-old split between *spirit* and *matter* which was re-summoned in the late 18<sup>th</sup> century by Johann Gottlieb Fichte (whose 1793 treatise on form and content still today manages to influence discourse on digitisation) and, more forcefully, has come to underpin all modern communication technology since Claude Shannon's mathematical theory of communication (1949). Hayles warns us of the implications of the belief that virtuality is to live in an immaterial realm of communication, and instead describes virtuality as 'the cultural perception that material objects are interpenetrated with informational patterns' (Hayles, 1999: 94). Information is always and forever dependent on a material carrier, regardless the nature of the information; this goes for analogue as well as for digital data.

Hence, there can still be said to exist some material distinction of digital artefacts, even when being allegedly identical copies, carrying the same piece of music: bitrate; encoding algorithm; the technical characteristics of the players used; the digital-to-analogue conversion; the degree of mechanical wear on the object and so on. Certain listeners might discern between differing technical standards of digital music, and such choices appear to be closely tied to economic choices and access to technology. Instead of an alleged absolutism in choice of either medium (carrier) or message (content), what becomes of the essence are *shifting scales of value*, and the *shifting contexts for playback* (with the shifting forms of re-productive consumption that every such situation constitutes).

The value of a cultural object is something which can be assessed in many differing ways, something that I also found in my research. The established notion in capitalist societies is to primarily value objects according to scales of *exchange/commodity value*; this is what lies at the heart of the conflict presented in the introduction to this essay. A refusal to see music as artefacts is thus a deliberate refusal to see them as commodities. My research has shown that most users seem to assign a low value to their files in terms of exchange/commodity value; the 'mainstream' notion appears to be that illegal copies generally do not replace purchases and that physical artefacts are still bought and valued in that they represent something more collectable and tangible. However, the *use value* of an object is completely separate to this commodity value; the pragmatic use of an object can be determined by entirely different things, as can the emotional love, nostalgia or affection for it. Thus, it would make sense to speak also of an *emotional/affective value*, not signified primarily by analytical deliberation, but rather by the sometimes apparently contradictory, fickle, even nebulous choices that are so characteristic of the everyday. We can also observe a dimension of *social/co-productive value*, displayed in communities like MySpace as well as in for example traditional concert settings<sup>12</sup>; this obviously ties into the shifting contextual modes of playback and consumption noted above.

Lastly, and more importantly, we could distinguish a final scale of valuation which I will refer to as *attention value* (or alternatively, promotional/'brand' value). If exchange/commodity value is all about the carrier – or signifier – this final scale of value is where the content – the signified – is of utmost importance. With attention value, the uniqueness of character of the pop song itself as signified is what is valuable; regardless of medium, carrier or platform, the unique status of it as a song – *the song* – is, once again, what makes it valuable. My expectation is that this is something which could in fact potentially ameliorate the agony of the present 'copyfight'. For every file copied, the artist's or content producer's 'fifteen minutes of fame' are momentarily extended, to ultimately benefit them in the long run. This has been seen happening since the very start of the 'p2p boom' with Napster in the year 2000, with for example widely popular hip-hop artists 'leaking' mix-tapes and occasional tracks onto the file-sharing networks, thereby generating valuable buzz. The sharing of the online file-sharers could here be seen to actually *contribute* to the value of the content spread, although perhaps more as an unintended by-product

than by deliberation. As with many other contemporary areas of consumer-producer relations, this is in effect a radical process of outsourcing labour to users. The end-users make part of the effort of distribution, saving labour on the producer/distributor side, lowering prices and altering competition balances. When file-sharers thus help musicians be heard more easily, they effectively, however tacitly, act as PR agents in some respects (and may get sued in the process, adding insult to injury!). If we still are to persist with applying the concept of 'aura' to the phenomenon, we could interpret this as a form of diversion of the potential aura; a positive recognition that the listener makes active part of, if not the co-authorship, then at least the co-distribution of the musical object. Not so special anymore, the distributed music becomes '*just a file my friend sent to me*'.

Another positive aspect (at least from the viewpoint of the entertainment industry) would be that we are seeing how a downloaded file does not necessarily replace a purchase, since many consumers actually value the actual nature of the content differently. A film can today exist as an online file of varying bit-rate and encoding (technical quality) that is instantly duplicable, for free; or as a full-price DVD (with lots of extra material); as a TV broadcast either (seemingly) free or pay-per-view; or, for that sake, as a slimmed down DVD version, handed out (seemingly) for free with Sunday newspapers! File-sharing is here merely part of a radical fragmentation of distribution vehicles, and – in parallel with that – *a radical fragmentation of value*. Dan Hill notes, in the afterword to his presentation:

Some research indicates that young people increasingly think of music in this way i.e. not really differentiating between a mobile phone ringtone, a downloaded single, or a music TV channel. It's all music. There's something potentially powerful in this ephemerality and transience, if we can see it as a return to a sense of music before recorded phonography. However, it's not as participative, and by enabling music to become so rootless, can we be sure that the supplied context is enough to enable music to appear a genuinely valuable cultural form in its own right? To enable listeners to discover a rich range of music? (Hill 2006)

Hence, the risk is perhaps not of passivity *per se*, but rather a range of numerous other risks. We can, to begin with, note the *rights issues* involved<sup>13</sup>. Did you for example know that it is not clear whether it is even legal to make personal safety backup copies of your own legally purchased CD under current British law? Consequently, in a recent survey conducted for the National Consumer Council (NCC), 59% of respondents did not know for sure and thought copying was perfectly legal (National Consumer Council 2006). This is but one example of the absurdity and complexity of contemporary copyright laws, given the technologically unprecedented situation of digitisation. Obviously there are numerous other examples where increasingly rigid legal frameworks for copyright clash with the actual, everyday uses made apparent by p2p technologies; it is not my intention to list them all here. What can be noted, however, is the seemingly irresolvable nature of this current problem; this legal disparity appears to be something which will continue to haunt society over the coming years.

Perhaps even more worrisome are two other issues at hand: firstly, the problem of *access* (that is, the problem that most p2p networks remain accessible only for those who know and who can operate them, especially so in a hardened legal climate that forces illicit alternatives to be less transparent and less publicly accessible). Secondly, there is the problem of *diversity* (the risks of 'echo-chamber effects'; only reinforcing existing preferences of taste and knowledge, catering only for the like-minded). The highly active, individualised nature of these digital systems of distribution, with their particular emphasis on knowledge and skill, underscores the ease by which one can personally choose to be active or, by the same token, passive. The problem becomes one of a deepened 'digital divide,' where one group of people relentlessly seeks unique individual experiences while another one is forced to be content with what is offered them. Here we return to the opening words of this essay: the issue remains an undoubtedly political one. It is not primarily about machines; it is about people.

However, perhaps most worrisome of all are the looming issues of *increasing surveillance and repression* inherent to the current debate on digital regulation. EU-wide lobbying and political mobilisation has resulted in some very real moves towards massively increased traffic data retention and monitoring, aiming at regulating the Internet and allowing private interests to act as police in tracking down what they deem as illegal uses. This constitutes a *de facto* privatisation of police authority and a further undermining of the rule of *habeas corpus*; Internet users are under these laws presumed to be guilty before trial, and the arbitrator of their guilt is not a judge but a private actor, acting on behalf of a particular industry with some very specific commercial interests.

What is especially daunting about these current developments is that there appears to be a de-territorialising logic to the technologies, leading the p2p configurations to be extremely resilient and to defy all attempts at extra-neous regulation. Hence, the emerging p2p technologies are largely experienced as practically pre-determined by the actors involved; it is as if the new configurations had a *telos* inherent to them, of furthering efficacy by way of increased fragmentation, decentralisation, encryption, anonymisation, and abstraction. This development, it is

said, simply ‘cannot be stopped’. Many of the technology pundits involved (bloggers, columnists, administrators, moderators) repeatedly state this, as did many of the respondents in my own study. By extension, this teleological, deterministic development of technology turns into historical determinism: if further de-territorialisation is seen as the given development of the Internet, then further attempts at re-territorialisation (with all the potentials for state-sanctioned violence that would entail) is ultimately seen as a response from those who see their institutional power as threatened by this de-territorialisation. Once again the situation is one which shows few signs of stabilising, or abating, over the coming years. The radical fragmentation of what might be perceived as ‘aura’ appears to dovetail with a fragmentation of its technological, societal and, indeed, democratic context.

## Conclusion

The broadband-connected, iPod-equipped network acolyte yawns in front of the screen. He feels as if he ‘has seen it all’; he has become a deliberating philistine, making strategic decisions of how to consume or not to, flickering fast between files and sources, finding modes of listening and watching that are scattered and interstitial, finding modes of consumption bearing on carelessness and casualness, propelled by the prospect of discovery. Yet, all too soon he becomes blunted, over-fed and disillusioned.

Could this scenario be seen as the template for a new, strategic stance towards consumption? In the object of the digital file, we can trace a range of imminent futures; some of them utopian, some hellish. Notably, as Max Pensky points out, this material-symbolic appreciation tends to be joined by discursive allusions to either an idealised past or an envisaged future (Pensky, 2004). Where some see scenarios of severely constrained rights management, control and supervision, coupled with over-abundance, inflation of artistic quality, meaninglessness, repetition and disappointment; others see utopian prospects of a free-for-all, liberated digital culture which is essentially bearing on renaissance concepts of music losing its status as a commodity while re-gaining its status as a social fabric or mediator, ultimately spawning a more egalitarian society in regards to cultural production. Who is really longing for a past here?

What I have tried to show in this essay is that Walter Benjamin’s concept of ‘aura’ – radical for its time – can be applied also to this contemporary situation of rapidly disintegrating notions of what an audiovisual ‘artefact’ is in the first place, and what its immediate context of appropriation is, in an era of vastly changing technical conditions for its reproduction. Hopefully, the thoughts assembled herein might lead to new, inspiring discussions on the role of art, the nature of artworks and tools, their modes and contexts of reception and circulation, and the potential discussions of value and sociological problems contained within all this.

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## Endnotes

<sup>1</sup> Over 16,000 users in the U.S. alone, according to Thompson (2006).

<sup>2</sup> The average spending on legal downloads among these was £5.52 a month, compared to the average monthly expenditure on digital music among those who were not illegally file-sharing, which was only £1.27. (Leading Question 2005, Gibson 2005).

<sup>3</sup> Obviously, file-sharing as per definition is not at all illegal: the technical protocols constituting the Internet rely on file transfer, copying of packets of data in-between networked computers. It is only when these packets of data are used to contain copyrighted material without the consent of the rights-holder the activity can be said to be illegal. Even stern critics of file-sharing admit that significant amounts (perhaps as much as 20%; cf. Fleischer 2006b) of the material shared through the major file-sharing applications is not illegally shared at all!

<sup>4</sup> See the comment by Husgaard (2008) for an account of the particular Danish scenario.

<sup>5</sup> See also my separate article on mp3s and their supposed lack of magic (Andersson 2008).

<sup>6</sup> Spotify is a Swedish-based, legal music streaming service that has risen to international popularity in the last year.

<sup>7</sup> We could invoke here the myopic trailing of the actor-network ‘ant’ (Latour 2005).

<sup>8</sup> Ernst (2002) writes how the archive only manages to create context in sheer logistic terms. The white space between the letters in the sequences of the analogue archives are, according to him, even more radically exacerbated by digitisation: here, all analogue surfaces become dissolved into discrete points; between them there is really *nothing*.

<sup>9</sup> We could still hold that a digital object is intrinsically hard to define, however. For example, we could ask ourselves how to delimit it – the object which we could attempt to define as finite and unique could be anything from a sample (anything from the percussive snap of a Roland 808 drum machine to a long, complex motif), a track (interludes, drones) or a song (ranging from a minute in length up to the audio CD threshold of 74 minutes), to a DJ mix or audio stream (radio, podcast). Likewise, the different file-sharing networks put different emphasis on what segmentation to make of audio content,



be it unique tracks as mp3s (as what is mainly shared on SoulSeek and Gnutella) or entire discographies (compilations of one or several entire albums, as is common with BitTorrent).

<sup>10</sup> Digital (or virtual) objects are *concrete*, or physical, in the sense that they too are dependent on being inscribed onto a carrier; cf. Hayles (1999).

<sup>11</sup> A digital mapping always leaves something out: 'the intervention requires the setting of a standard raster. [...] The standardization of the raster is a *protocol*' (Sondheim 2005; see also The Wire 1994). The notion of 'bitrate' in formats like mp3 has arguably led to a wider public awareness and understanding of how digital dithering always constitutes some form of mathematical approximation.

<sup>12</sup> These different scales of value could fruitfully be compared with Bourdieu's (1984) concept of *habitus*, although I would claim that valuations of personal gratification in these instances are far less overtly deliberating than the traditional, outward displays of cultural standing implied by the term 'conspicuous consumption'.

<sup>13</sup> One of Hill's examples, MySpace, is significantly limited here as it operates in a grey zone as to what an independent artist can gain from his/her publishing of songs on the site. See Brown (2006) for a comment on the controversy that flared up in 2006, regarding the site's user license agreement.

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