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Framing the Musical Subject, Technoculture and Curriculum: A Heideggerian Critique

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ABSTRACT

This paper addresses the framing of the musical subject applying Martin Heidegger's philosophy as articulated in his essay "The Question Concerning Technology". I discuss Heidegger's notion of *poiesis* and, within this, his argument for the saving power of art (music as art) in the confrontation of technology's essential unfolding. Global empires and techno-culture define and frame the musical subject in politically interested ways. Where technological enframing procedures impinge on institutional sites such as schools, discourses of official music educational 'knowledge' are conditioned and remain uninterrogated in terms of their impact upon the musical subject. Music education ordered under a technological regime, as it is in the New Zealand Music Curriculum, requires, of necessity, a critical philosophical questioning of the politics of musical knowledge and of sites of *poiesis* as they occur within a particular ideological context. Ontological questions concerning technology's role in the ordering and construction of musicality as a site of identity- 'being musical' and the protection of musicality become critical issues. Finally, musical culture and the global musical subject in the postmodern condition are contextualised within a global cybereconomy with all its inequalities in power relations.

Heidegger's questioning concerning technology

German philosopher, interpreter of Nietzsche and critic of Western metaphysical modes of analysis, Martin Heidegger, indicated the grave consequences of pervasive and dominating modern prescriptions of thought. These generalise, he suggests "so as to apply to things, equipment and work" (19936: 157). Such a dominating preconception, he argues "shackles the reflection on the Being of any given being" (Heidegger, 19936: 156) and Heidegger warns us to "take heed of" the "boundless presumption" embodied in such thoughts (157). The gravity of Heidegger's thinking on the domination of technology in modern life and the need for an ongoing questioning of what the questions might be concerning technology is developed in his seminal essay, "The Question Concerning Technology" (QCT), written in 1949 and revised in 1955. Heidegger states (1993a: 341):

> Thus questioning, we bear witness to the crisis that in our sheer preoccupation with technology we do not experience the essential unfolding of technology, that in our sheer aesthetic mindedness we no longer guard and preserve the essential unfolding of art. Yet the more questioningly we ponder the essence of technology, the more mysterious the essence of art becomes. . .. The closer we come to the danger, the more brightly do the ways into the saving

> power begin to shine and the more questioning we become. For questioning is the piety of thought.

Heidegger's views are helpful regarding art's (including music as art in the broadest sense) role in the protection or safeguarding of *Being*- in this case, 'being musical'. *"Poiesis",* argues Heidegger, may enable us to defy the "essential unfolding of technology" (Krell, 1993: 309). He wants to criticise the essence of technology for being unconcerned with protecting Being. When we take this tool (technology) for granted assuming its disinterestedness or neutrality we do not understand its true nature and we are unaware of its enframing and manipulative qualities. For Heidegger:

> ... the essence of technology is by no means anything technological .... Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it. But we are delivered over to it in the worst possible way when we regard it as something neutral; for this conception of it, to which today we particularly like to pay homage, makes us utterly blind to the essence of technology (Heidegger, 1993a: 311-312).

Discourses of music education conditioned and interpreted within the 'Creative Industries' and 'education-for-sustainability' paradigm of knowledge are tied to global technological advancement. Dominating assumptions embedded within the music curriculum indicate that within music education the 'natural' human 'resource' of musicality - 'a primary product' - can and must be worked upon, or, in Heidegger's terms, "set upon'" to produce "higher value products" (Ministry of Education, 1995: 6). Through a *technological musical literacy,* nature is thus set upon and challenged.[1] In QCT Heidegger states:

> What is modern technology? It too is a revealing. Only when we allow our attention to rest on this fundamental characteristic does that which is new in modern technology show itself to us ... And yet the revealing that holds sway in modern technology does not unfold into a bringing forth in the sense of *poiesis.* The revealing that rules in modern technology is a challenging *[Herausfordern],* which puts to *nature the unreasonable demand* that it supply energy which can be extracted and stored as such (1993a: 320).

How is music education to 'add value'? We are implored to jump the technologically deterministic hoops, to conquer, hoard, and turn into investments- objects - the human "resources" of musicality. If *being musical* involves the ability to perceive, appreciate, and produce melodies and rhythms, why, in the predatory moves for order is the absenting of the body from the sight and site of sound in musical production (its disembodiment) neither stated, recognised, made problematic nor revealed within the New Zealand Curriculum? The neutrality of technological literacy is assumed. We are to master, through an apparently neutral technological literacy, the musical 'human' resources of the subject and, as Marshall states with reference to *Technology in the New Zealand Curriculum* (Ministry of Education, 1995), "to extract, store, and invest" in such resources (2000: 122). The question of technological 'literacy' which now colonises the arts as sites of creativity, avoids the question of what Heidegger terms, its "essence" - the challenging setting-upon nature of the essence of technology. The 'primary product' of musicality becomes objectified and is to be processed into higher value products. Not only does the *Arts in the New Zealand Curriculum* (Ministry of Education, 2000) not acknowledge the 'interestedness' of the notion of technological literacy within arts literacy, but the actual value-laden nature of technological literacy is not mentioned. As Marshall (2000: 124) points out, the *Technology in the New Zealand Curriculum* document (1995) places knowledge and understanding of the capabilities of technology "prior to environmental, social and cultural issues". The intention is not critical musical and arts literacy, but rather a functional literacy.

Heidegger argues that in modern technology, there is a *challenging* or *demanding* of nature, not just a bringing forth or revealing of what is in nature, as in ancient technology (see Marshall, 2000: 126). In modern technology, a demand is placed upon nature, to do more than reveal nature (musicality), but to order it as "standing-reserve" (Heidegger, 1993a: 325). For Heidegger, this demanding of nature was captured within the notion of *Enframing (Ge-stell).* Music education will, in Heidegger's thinking, be challenged to not merely reveal and nurture musicality but to order it as

"standing-reserve". The musical subject thus becomes part of the standing-reserve. Where technology is used for the production of CDs and tapes of recorded music for use in music education in schools, musicality, in Heidegger's terms is kept in reserve, challenged, used by others for production within the studio. The use, in schools, of such packaged resources, is likely to mean less use of musical instruments and a reduction in the physicality of music-making. Heidegger's anxiety about the coercive and oppressive nature of modern technological culture is expressed further when he states (1993a: 325-328):

> Enframing means the gathering together of the setting-upon that sets upon man, i.e., challenges him forth, to reveal the actual, in the mode of ordering, as standing reserve. Enframing means the way of revealing that holds sway in the essence of modern technology and that is itself nothing technological (325). ... The rule of Enframing demands that nature be orderable as standing reserve (327-328) .... We are questioning concerning technology in order to bring to light our relationship to its essence. The essence of modern technology shows itself in what we call Enframing (328).

In the case of music education, what is in 'nature' is not brought forth, or revealed in the use of 'quick-fix' commodities for it involves controlled, minimal and diminishing musicianship. Composing, performing dimensions of musical being are enframed ideologically and musicianship is left unperformed - largely intact. Musicality will not come into presence. Thus, the site of *poiesis* is endangered because it is ordered. The *being musical* aspect of the musical subject's identity, is unnurtured, unprotected in the musical subject to the extent that technology engineers and directs musical expressivity. Marshall notes that "[w]hat was wrong with modern technology, according to Heidegger is that it reduces humanity to the state of a clever animal, with no obligation to shelter things or protect then *being* (Marshall, 2000: 128). Given that teachers within state education are charged with the protective role of being in *loco parentis,* technological literacy and literacy in the arts ought not to be taken on without this sheltering and protection of *musicality and its being.* If "everything including humanity is turned into a standing reserve, and man himself is changed m this ordering and controlling of standing reserves" (Marshall, 2000: 128), then the musical subject is changed in such access to music-making. He or she then becomes the 'clever animal' in the form of the DJ, the studio technician manipulating digital musical technology. Opportunities for students to play instruments, to sing, to make music are lost or grossly diminished and unprotected.

Heidegger (1993a: 318) states in his essay, "The Question Concerning Technology":

> Bringing-forth brings out of concealment into unconcealment. Bringing-forth propriates only insofar as something concealed comes into unconcealment. This coming rests and moves freely within what we call revealing *[das Entbergen].* The Greeks have the word *aletheia* for revealing. The Romans translate this with *veritas.* We say 'truth' and usually understand this with correctness of representation.

Nature is set upon and challenged. Again, Heidegger claims: "This setting-upon that challenges the energies of nature ... is always itself directed from the beginning toward furthering something else, i.e. toward driving onto the maximum yield at the minimum expense" (321). Further, he says:

> Enframing is the gathering together which belongs to that setting-upon which challenges man and puts him in a position to reveal the actual, in the mode of ordering, as standing-reserve. As the one who is challenged forth in this way, man stands within the essential realm of enframing (Heidegger: 1993a: 329).

The musicality of the musical subject is set upon, stored up, saved, framed, to be used, under-used, "distributed ... switched about ever new" (Heidegger, 1993a: 322).[2] In this situation *poiesis,* as revealing, occurs only within a particular ideological context. The musical 'work' is produced to stand by, to be in stock as commodity to sooth the largely untouched musicality of the masses who only listen. The presence of absence is everywhere. Bodies are abstracted from the sire of musical production. The musicality of the musical subject is in "standing reserve". The musical subject is ordered to produce an object, and alongside the object, to stand by with his/her 'natural' resource which is musicality. When resources (by extension nature and culture) are exploited, its subject

matters are alienated and transformed. As Heidegger argues: "Where enframing hold sway, regulating and securing of the standing reserve mark all revealing (1993a: 332). For the musical subject, where enframing holds sway, *poiesis* and revealing occur within a particular scaffold which orders. Heidegger states (1993a: 323, 333):

The fact that now, wherever we try to point to modern technology as the revealing that challenges, the words 'setting-upon,' 'ordering,' 'standing-reserve,' obtrude, accumulate in a dry, monotonous and oppressive way- this fact has its basis in what comes to utterance (323). ... Thus the challenging-enframing not only conceals a former way of revealing (bringing-forth) but also conceals revealing itself and with it that wherein unconcealment, i.e. truth, propriates ... Enframing blocks the shining-forth and holding sway of truth (333).

Heidegger sees the saving power of art and the poetical as "poetical revealing":

> Could it be that revealing lays claim to the arts most primally, so that they for their part may expressively foster the growth of the saving power, may awaken and found anew our vision of, and trust in, that which grants? (1993a: 339-340).

He implores us to "stand and guard" or protect the "essential unfolding of art" (341), and this includes music. That is, in our terms, the musicality of the musical subject in its "essential unfolding". He seeks "reflection upon technology and decisive confrontation with it" (340) and suggests that this occurs best in the realm of art. He sees the saving power of art in all of this. Critical curriculum scholarship must, therefore, engage with decisive confrontation in its reflection upon technology. When the musical subject is enframed, musicality in action is reduced and the goals of transformative possibilities for radical, critical pedagogy become illusive. However, when students discover ideologies of listening, playing, performing, and musicianship and their social, cultural, historical contingencies within an adequate theory of representation, there is space for resistance and transformation. It is within alternative and resistance strategies that Heidegger's sites of *poiesis* are to be found. *Poiesis,* I suggest, may be found within a music education wherein "questioning builds a way" (Heidegger, 1993a: 311). It is with this and through this questioning approach that the examination of the technology in the New Zealand music curriculum follows.

Technology in the New Zealand music curriculum

A number of authors have documented the wider educational 'reforms' that occurred in New Zealand with the restructuring of educational administration in the late 1980s to 1990s (see Peters, 1995, 1996; Olssen, 1990, 1996; Fitzsimmons, Peters and Roberts, 1999; Grierson 2000; Mansfield, 2000). The pervasive effect of neo-liberalism and economic liberalism has been felt as a result of the thrust toward globalisation and the internationalising state. Curriculum has thus been embroiled within this project and the introduction of (high) technologies into the curriculum has not been unrelated to an imposition to act as a 'transmission belt' for the world economy.

Technological enframing procedures impinge upon institutional sites such as schools, where discourses of official music educational 'knowledge' are conditioned and may be uninterrogated in terms of their impact upon the *musical subject.* School practice enacted through new curriculum prescriptions have obeyed these technological ordering processes as musical production is increasingly framed on technology's terms. The policy document *Digital Horizons: Learning Through ICT - A Strategy for Schools* (Ministry of Education, 2002: 3) which revised the Information and Communication Technology (ICT) Strategy for New Zealand Schools, stated its aim of "helping schools to extend their use of ICT to support new ways of teaching and learning" (Brown, 2002: 1). Globalising processes and interests have promoted the new orthodoxy and presence of technology in the curriculum generally and in the music curriculum in particular. Its representation in the music curriculum is undeniable. Technology is mentioned early in the Music Curriculum (see Ministry of Education, *The Arts in the New Zealand Curriculum,* 2000: 52), which states: "Music encompasses. ... sounds generated by conventional musical instruments and *electronic technologies".* Students are

to "appreciate the aesthetic qualities, in the sounds of the natural and *technological* environments" (my emphasis).

Students are to be technologically literate, for "literacy in music", according to the curriculum document (Ministry of Education, 2000: 53) "involves the development of knowledge and skills relating to ... technologies and musical structures". A measurable 'literacy' in music implies the mastering of technological conventions, which are thus normalised within the document in relation to creating and performing and critically evaluating musical compositions and performances. 'Literacy' in music is therefore linked to particular communities, those involving technology and commodity culture. Particular *business* partnerships using technology therefore link 'literacy' in music and art to notions of 'creative industries' and particular creative communities. The politics of musical literacy are left unproblematised, as are questions of access to sophisticated technology. Following "the imperatives of commodification and empire", communities form on the basis of technology's reproducibility capabilities, and, as Bill Martin in *Avant Rock* (2002: 212) argues, at the point where a small number of corporations control almost all the media, things begin to look a little "conspiratorial". The formation of the 'literate' music community, composed of 'developing' 'literate' musical subjects appears to have a clear relationship to certain technological capabilities. Further, the help of schools is required to rein the musical subject (student and teacher alike) into the technological vortex. One way this is done is through curriculum prescriptions. We need, therefore, in a music education which nourishes the *musical being* aspects of life, to question the nature of the relationship between these communities (which organise collective musical memory) (Mowitt, 1987: 182), and technologies for ideological purposes. The curriculum intends, it would appear, to set the occasions for the 'developing' musical subject to form 'literate' music communities tied to technological capabilities. It follows that we must interrogate the connections between the technologically literate music community produced by the school and the imperatives of commodity and empire.

In the New Zealand Curriculum for Music, Level 7 (Ministry of Education, 2000: 62) it states that: "Students will analyse and investigate ways in which *communications media* and *technology* influence sound and meaning in music" and that "they [students] will use *critical analysis* to inform and *evaluate performances".* But how, we may ask, is critical analysis being framed or interpreted? Questions asked from within the ideological framework of policy will not allow for the critical questions to be asked and, as Peters argues (in Grierson and Mansfield, 2003: 11) "there is no place to stand outside the system". Again in a similar vein, Marshall suggests, technicist questions require, technicist answers (2000). "Critical analysis" is used (only) to "inform and evaluate a wide range of performance (Ministry of Education, 2000: 69). That is, critical analysis is to inform *performance* and to evaluate *performance,* the musical *'work',* not to examine the discourse of music education - now positioned within the discourse of technology and commodity culture. That is, students are to be kept unaware of the politics of musical knowledge for such profoundly critical questioning is neglected within the normalising procedures of state curriculum documents. 'Criticality' ought to involve dialogue, which can hardly proceed from the idea of a universalist consensus implied within the curriculum imperatives of developing 'musically technologically literate' students or from the idea a "prior-being-in-truth" (Kögler, 1996: 84) where the value of "truths" emanating from "technological literacy in music is assumed. If the wings of dialogue are dipped by technological rationality, criticality does not occur.

That is to say, the Music curriculum within *The Arts in the New Zealand Curriculum* (Ministry of Education, 2000) embeds a universalist claim to "truth" about the value of technology, (a universal consensus). Under such circumstances there is little opportunity for understanding to become a reciprocally challenging process. Thus, what Kogler refers to as "the power-determined character of understanding" and "power-determined meaning constitution" (1996: 84) is apparent in arts 'knowledge' through the pervasion of technologically based or conditioned 'arts literacy'.

Where students are to understand 'Music in Context' (Level 8, Ministry of Education, 2000: 69): the document states:

> Students will investigate the purposes and significance of music in society and research a range of styles and genres in music in relation to past and present contexts. Students will research the ways in which *technology mediates* the composer and the performer and the audience in contemporary contexts.

Once again, there is no space for criticality. "The ways technology mediates the composer" implies a technicist answer. A critical pedagogy would presumably ask questions relating to the protective dimension of Beings including questions on the "lived relations of domination" (Haraway, 1991: 4). A critical musical pedagogy would also require a deconstruction of the digital bit which affects memory (see Mowitt, 1987).

Under 'Developing Ideas in Music', the Music curriculum (Ministry of Education, 2000: 54) states:

> Students develop and awareness of different sounds and the potential of sound for resourcing and generating ideas and for communicating feelings. They use aural skills, imagination, and developing a knowledge of structural devices, musical instruments, *technologies,* and the elements of music to improvise, compose, and notate music with *increasing sophistication and refinement* (my emphasis).

Thus, 'technologies' condition the discourse of music education through "improvisation and composition" and performance, and their "increasing sophistication and refinement" ('Developing Ideas in Music', Ministry of Education, 2000: 54). Such phrases as "sophistication and refinement" (Ministry of Education, 2000: 54) are loaded and emotive phrases now linked to technology's capabilities and its specialised communities. Again, under 'Developing Ideas in Music', "[s]tudents will use musical elements, instruments, and technologies to improvise and compose simple pieces" (Ministry of Education, 2000, back cover chart). "Official" musical knowledge as prescribed in curriculum, now becomes linked to the use of technologies and weds the 'developing' musical subject and her skills to the discourses of the "creative industries" and their commodities or products.

Musical culture and subjectivity in the postmodern condition

Musical subjectivity in the postmodern condition is constituted within the play of difference, - "the play of the symbolic and the semiotic-the continual vacillation between order and disorder" (Whitely, 2000: 97). It is in this postmodern context that the universalist ethos of modernism is superseded by notions of cultural context, reception and ambiguous, fluid and often contradictory subjectivities. Yet what do we know of musical subjectivity and of the signifying practices of the musical subject in postmodernity? If student subjectivities are the object of our professional studies and research, what can we learn for education in general from semiotics of music (e.g. from the "scream of feminized punk" (Whitely, 2000: 107). What 'small stories' are revealed of student subjectivities in musical semiotics (through the signifier, the phrasing, the prickling staccato, the metallic sound of the guitar, the march-like rhythm of a song)? Jean-Francois Lyotard's *The Postmodern Condition* (1984: 66) refers to conflict and struggle in the "search for dissent" and implores us to capitalise upon the dashes and confrontations between profoundly different realities and the "heterogeneity of rules", hurling questions at rules for [musical] narration (1984: 79) (i.e. rules for judgement in aesthetic criteria).

Received approaches of music are challenged by revolutionary and radical subjectivities, which command a disruptive power and express themselves in new musical spaces of articulation, radical form and disorientation. Musical signifying practices include romantic and mystical expressions, impetuous rhythms, "throbbing cadences", "pulsating tempos", "assemblage[s] that pulsate with menace, cynicism and perversion" (Whitley, 2000: 97-98). Subjectivity is both subject and object of the "fetishistic, the harmonically static, the heavily repetitive … the extraordinary" (Whitley, 2000:

100), where ambiguities of sexuality, female identity and boundaries of gender are disputed and challenged in new performative moments. Desire might be expressed through music that is intensely dynamic, insistent and urgent and religiously animated, as well as through "odd juxtapositions and figurative displacements [which] dearly presage the disarticulation, the *bricolage* of the punk aesthetic" (Whitely, 2000: 105, my emphasis).

What are the subjectifying experiences that may be discerned for musical subjectivity from, the postmodern condition? Baudrillard identified a state of hyperreality resulting from the "simulcra of simulation (Stiles and Selz, 1996:3) - a condition in which the very idea of the original, the unique, disappeared in an endless circulation of imitated codes, signs and discourses, and Lunenfeld (2002) refers to the notion of "hyperaesthetics of technoculture". Such notions suggest the need to register awareness of the revolutionising of the arts, music, communication and education through digital aesthetics and to ask what the moral and epistemological implications might be for music education whose terrain is profoundly implicated in all of this. New and 'hybrid' musical genres have emerged and; as Gebesmair and Smudits (2001: ix) argue, the need has arisen to offer a critique of musical practice as the product of free and individual expression. Digital distribution channels distribute and circulate at at high speed music, beats and recorded rhythm sections to multiple places on the globe lumping together and homogenising various cultural categories of music for the ease of distribution in the service of avaricious global capital.

Altered states of perception must result from the technological metamorphosis of artwork's workly dimensions, in Heidegger's terms. It is difficult to separate reality from its psuedo-representation in sound or image within a depersonalised consumer system of commodity. In other words, the cultural environment had been transformed the possibilities of replicating music, by "portable hi-fidelity" (Mowitt, 1987: 190), by globalised digital electronics, the possibility of down-loading of music from the Internet, and by the technological capability of computers to represent audio and visual information in "a uniform binary code". Informational demands may be satisfied globally and instantly by such an internationally developed disseminating infrastructure (see Lunenfeld, 1996:1-2). The variety and availability of differing cultural sound patterns, through sampling, is legion and the appropriation of these musical forms involves huge schisms in time and space. Places, histories and traditions - their sounds and signs - become accessible, available and universally connected or wired. In this vein, Susan Binas (2001: 52-53) points to Karl Neuenfelt's research, which refers to the overdubbing and technologising of aural images of aboriginality". The use of the didgeridoo (a traditional Australian Aboriginal musical instrument) for example, as aesthetic material, is used not to refer to particular cultural meaning or particular musical traditions but "to satiate the thirst for wider sources of material" - part of the process of cultural globalisation.

Geographically scattered composers can now email parts to each other, and engineers and scientist are able to create 'virtual' studios which fiddle with 'symbolic sound' through global digital technology. This online community enables them "to share Kyma (a visual language for specifying and manipulating sound' (Scaletti, 1999: 7, cited in Barken and Hamlessley) to create interesting hybrid compositions.

Acoustic spaces may be joined together, and, through a process of convolution, sampled sound spectrums may be layered or mapped onto other spectrums, and the characteristics of both sounds melded together (see Rubin cited in Bar kin and Hamlessley, 1999: 11). Digitally suspended musical elements can be pulled, separated and then deployed in the constitution of pieces. As timescapes are altered, temporalities tampered with, as the 'old' and the 'new', the 'hard to find' music, and the common and often used rhythms are juxtaposed, then the musical subject of global consumer democracy is radically re-individuated as an individual, rational, autonomous chooser of the marketplace. Music may be sped up, slowed down, stretched out at will.[3] "Hype" may be abstracted or inserted and maintained through drum samples. Repeating patterns and specific culturally signifying rhythms (such as the highland fling rhythm) may be placed under or over the melody of any piece. The 'right' or perfect performance may be assembled through the 'splicing' together of

different 'takes'. Sampled sounds and beats traverse the world on acoustic data bases or within globally organised record companies in musical exchanges of cultural standards all now included within a global cultural economy and circulating in transnational networks of musical practice (Binas, 2001).

Musical knowledge constructions within neo-liberal political spaces promote conditions for students and musicians to surrender themselves to the sound-byte cultural milieu as globalisation and its technological trappings, in economic, social and political terrains, intrude upon contemporary social arrangements. Because musical knowledge is in its postmodern condition and given the capitalist substructure of the musical 'work' under globalised technology, questions of identity and democracy are vital themes for critical music educators to consider. Auditory metaphors of hearing and listening are part of the society of spectacle and simulacrum. The musical subject is the object of fetishism and voyeurism, and the reproduction of musical sound is part of the fetish of musical commodity. Subjectivity in the postmodern condition is now constituted within an era in which the sexual revolution has coincided with music videos production, with pop music spectacle almost normalising this libidinal expression through music as a form of fetish. Musical subjectivity and the sexual dimensions of this are thus now spectacularly and publicly constructed in pop concerts and globalised, digitalised media culture.[4]

The commodification of culture as a resource under global, multinational, hypercapitalistic, mass communication sees "sense", "meaning" and "materiality" in society synthesized and "referred to as only as *symbolic references* for the distribution and exchange taking place within it" (Engels-Schwarzpaul, 2000: 274, my emphasis).[5] Digital recording practices now enable the reversal of generational schemes (Mowitt, 1987) as well as the transformation and reversal of race and gender of 'original' pieces, which include voice. Knowledge and understanding of things around us is manipulated, subjectivity moulded and streamlined.

Electronically colonised sounds and associated practices often preclude our differentiation between an 'original' sound and its representation in reproduction. Mowitt (1987: 175-8) in considering such questions asks whether this is an instance of mere "temporal deception", or can it be read as the radical priority of reception in which the social construction of music is registered? What controls memory and access to telling this difference in musical listening? Repetition, as he suggests, "now constitutes the very threshold of music's social audibility" (see Mowitt, 1987: 175) and, in recording practice, has intruded into what Theodor Adorno termed the musical material to the point where the dynamics of performances are themselves moulded by repetition itself as well as its anticipation. Debate centres around the extent and reality of 'democracy' in compositional possibilities given the unequal access various countries have to technological advances. According to Mowitt (1987: 175), the replacement of scores with records and tapes has democratised the possibilities of composition, and has indeed "been an indispensable component of the explosion of 'non-professional' composition".[6] While digital technology has encouraged forms of democratised compositional practices through redefinitions and reconstructions of the musical work of art within popular culture, this has also meant that conditions for musical *creation and performance* as cultural *production,* assume less importance than their *reception* in the community.[7]

Globalising processes create a musical world through which hypersensitivities may be augmented and diminished, 'worked up', 'tuned down', soothed, lulled, stretched, short-circuited, and brought to a mellow standstill through the recording studio facility for repetition and reproducibility and the advances of digitalised aesthetics. Virtual and mixed musical realities can be constructed through hybrid constructions of music, through juxtapositions of various tempos, rhythms, moods and aesthetics. Through the manoeuvring of drum rhythms and tempo, dynamics may be manipulated, and, where an 'original' song might lack sufficient strong beat for 'moving to', insertions of rhythm may be added while 'tape loops' may be used to signify or establish rhythm and chromatic texture. Alteration and extension of sampled sound are products of composers, engineers, and scientists who, through the 'virtual' studio may both specify and manipulate sound

(see Scaletti, cited in Mansfield 2003: 6). Musical subjectivity is thus technically orchestrated, culturally produced and reproduced.

Categorisations and definitions of 'composers', 'instrumentalists', as well as 'audiences' are embedded with ideological components in whose interests certain definitions operate. It behoves the music educator to recognise in them some of the processes of 'othering' through which institutional practices of music education re-embed, in the postmodern condition, the certainties and central tenets of modernist epistemology.

What symbolic positions do our students occupy through their musical representations? What do the semiotics of music, of songs signify about student subjectivity, through rhythm and melody? How might rhythm articulate a particular responsiveness and orientation to life? What are the invariable inseparable complements of a cultures rhythmical structure in terms of pitch, vibrato and timing, and how do varying notions of sophistication, flexibility and artistry worked out in different cultural contexts contribute to the construction of musical subjectivity? Rhythm, for instance works not only with particular historical and cultural context in music-making practices to construct subjectivity within musical culture, but within globalised, digitalised technoculture where new musical moments are defined and expressed. The musical subject is constituted within in the cultural terrain of a "new era of consumer democracy" (Roberts, 2002: 371) where market presides and there is apparent freedom to choose and manipulate symbolic goods. The implications for music education and education are, in general, huge. Roberts implores us to think in inclusive terms here of "the disruptive, transcendentalising power of revolutionary subjectivity" (Roberts, 2002: 372).

Given that technologies of recording and distribution shape the processes and rules of music production and conceptualisation, and therefore the conditions of music education, Heidegger would alert us to the dangers of an unquestioned adoption of this *Enframing* milieu. Homogenisation processes continue as a certain uniformity dominates the processes through which we become different. Continuous cultural globalisation embeds musical processes in notions of law, injustice, authorship, creativity and responsibility for cultural traditions (Binas, 2001). Heideggerian insights would therefore encourage music educators to insist upon an interrogation of instruments, hardware, and software and their effects upon the musical process and a questioning analysis of the relationship between music and technologisation of the global world of knowledge. A critically and philosophically coloured music (and arts) education would bring into discussion the points at which technological advances become enabling and enhancing of expressivity, as well as the danger points at which technology begins to manipulate, inhibit and control.

Concluding remarks

I have discussed the framing of the musical subject, and, applying Martin Heidegger's philosophy, I have argued that modern technology's enframing capabilities and tendencies have consequences for music education discourses, as well as for music educators, in the postmodern condition. Through a discussion of the democratising and enframing processes involved in technology in the music curriculum, I have illustrated the absence of debate on political, hegemonic, technological constructions of music education. The contradictory discourses that music educators must negotiate have been revealed as well as the need for a questioning of the connection of *technological musical literacy* to commodifying communities in the global context.

To reiterate, technologies of music, as they are now enframed, are both technical and political. Memory, both individual and collective, involves a politics of knowledge, no less a politics of musical knowledge. The colonisation of memory by the reception of music, music's dependence on memory, and memory's deeply social nature, and the fact that listening is an essential part of musicianship, suggests that whatever controls memory will affect musicianship. The sites of construction of community in the musical organisation of collective memory therefore require

interrogation for ideological purposes. Critical philosophical questions need to be brought to the music educator's table concerning technology. Ontological questions concerning technology's role in the ordering and construction of musicality as a site of identity- being musical" and the protection of musicality become critical issues.

Notes

1. See Marshall (2000: 127).
2. Upon hearing this statement in a lecture I presented recently, students in the Masters of Music Education course commented that the software 'dictated and limited their improvisation.
3. In this vein Anna Rubin refers to “phase vocoding”, a process, which “stretches sound in time” (1999:10) and transposes it higher “stretching [sounds] to several times their original length”.
4. Construction of black subjectivity, as “the body, the other of the bourgeois mind” is referred to by Frith (1996: 127) who suggests further, that “the history of jazz and rock’n’roll has been littered with racist readings”. “Fantasies and mythologies” he argues, were “constructed around certain musics” and associated with “vital libidinal impulses” (Frith, 1996: 129). Modernist intellectual ideological explanations tended to discuss ‘rock’ music in terms of “*jouissance*, the escape from structure, reason, form” (Frith, 1996: 144), pathologizing respectable taste. Frith challenges this arguing that the “[s]o-called ‘hot’ rhythms don’t actually mean bodily abandon but signify it in a particular ideological context” (144).
5. Engels-Schwarzpaul (2000: 274) point to Semseth and Stauth (1988:712) who suggest that “colonised people have been confronted with forms of simulation from the beginning of colonisation … Colonised rule emerged as a system of non-reference to the practical life-worlds of subordinate populations”. A digital sample of the didgeridoo – one that can be used and tune electronically – exemplifies this system of non-reference to culture. According to Binas (2001: 53), rarely is the question asked where did the sample come from and to what cultural tradition does it belong or what is its relation to historical facts and economic injustice?
6. Both Theodore Adorno and Walter Benjamin assumed the decay of ‘aura’. “Taken together, the Walkman and the recording studio mark developments which in effect, confirm the apparently autonomous diagnoses of Adorno and Benjamin by embodying the victory of what each of them saw in the other. That is, these developments represent simultaneously the appropriation of ‘serious’ music by the technology of mass culture feared by Adorno and the political co-optation of social possibilities embedded in our relation to that technology feared by Benjamin” (Mowitt, 1987: 190). A critical music education might provide the space for the revivification of aura despite possibilities that doing so would involve rupture, difficulty, ‘*gnosis*’.
7. Bill Martin in *Avant Rock* (2002: 216) rejects the temptation to say ‘anyone and everyone’ has access to this technology as a ‘first world prejudice’.

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