

## THE CONTEXT OF ENVIRONMENT/PLACE AND ITS SOCIAL ECOLOGY

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### Abstract

The paper addresses the most salient contextual issues that underpin and extend the concepts of environment and place previously considered by MEC researchers (Wattchow, Burke & Cutter-Mackenzie, 2008). More specifically, the environmental context of our focus is on place-based imperatives as they occur in and through diverse environments, including natural/physical, wild/more-than-human, built/human-made, social/community and personal/individual environments.

To contextualize place as a locus and focus of inquiry for pedagogical and research development this paper addresses two main contextualizing concerns. The first is clarification of some central underpinning themes such as the moving body in space-time and, therefore, the ecocentric meaning-making qualities of experience (Dewey, 1938/1991) that have been touched on previously by MEC researchers (Brown & Payne, 2008; Brown, Bennett, Ward & Payne, 2009) as they occur in various geographies and communities of physical activity at a larger macro level of social coordination and arrangement (O'Connor, 2008). Our second concern in this paper is to extend or apply the underpinning notions by providing some illustrative examples, or case study snapshots.

At the deepest level of human experience, with powerful implications for education, such deep experience is constituted by time-space and the social contexts in which time and space are constructed, often in isolation from each other thus rendering any conception of place as problematic. Various social constructions of time—as cyclical, linear or digital will significantly shape the embodied nature of experiences of place and our perceptions and responsiveness to it. That is, time as a context in which various social constructions occur is, indeed, enigmatic. The enigmatic nature of various times sometimes makes its experience dissonant, even contradictory. In a 'fast' postmodern culture the embodied time-space experience is too often intensified and individualized. Such fast, accelerating and slow contexts of time remain a risk and challenge for how we might critically examine and experience place, sensing it, or even attaching to it, in education.

Through drawing upon everyday issues in a built school environment we consider the intersections of environment-place and time-space within a broader social ecological framework. In presenting this case in 'context' we gesture towards a transdisciplinary understanding of environment-place signified by time-space.

It is normal for physical, outdoor, environmental and health educators, and researchers, to assert that the fundamental contexts for their work can be found in the moving body, the activities we privilege like games or bushwalking, and how we think students gain and learn from those activities and experiences. Slightly more perplexing for pedagogues and participants is the more assertive use of the term 'experience' because we often prefer the word 'activities' over the much richer and more complex term experience, noting those two terms are often, but unfortunately, used interchangeably and, if so, might mask larger educational challenges to the value of our pedagogy and educational objectives, or aims—and 'outcomes?' Stranger still with the mention of the all-important contexts of the body and its experience of moving is how movement is always experienced in the elusive context of 'time-space.' So, bodies, moving, time-space and their experience begin to define the contexts we seek to further expose in this paper *before we* shift those understandings into the broader contexts of practice and pedagogy that, typically, we preoccupy ourselves with and will be addressed later in this paper, through example of research activity.

This paper is, therefore, concerned with a somewhat strange way of *contextualizing* our earlier *conceptualizations* (AARE, 2008) of movement, environment, community, or MEC in what we would like to think is a transdisciplinary manner. That is, transdisciplinarity extends beyond interdisciplinarity by ‘opening’ up new or different vantage points, sometimes philosophical and theoretical or conceptual (and inevitably empirical), through which scholarly inquiry can, potentially, be (re)framed.

Prior to the broad range of ‘applied’ contexts in which physical activities occur in various environmental settings (exemplified later), our initial interest here lies in the rarely considered ‘pure’ contexts of how the ‘positioning’ body and its movements, in spatio-temporal conditions configured by an array of ecological ‘affordances’ (opportunities and limitations on movement) is something that physical, environmental, health and outdoor educators and researchers might take seriously in rethinking certain assumptions in education. Put simply, the moving body in physical activity might be understood as both a site and a setting. Indeed, there is something awry about reconceptualizing and recontextualizing movement as a ‘geography of physical experience in and through time’—then applying it through various curriculum areas and their contexts concerned with the education of and for the ‘physical’ (bodies) in various sports and outdoor recreations. By considering ‘context’ in this way—as a spatiality of movement and geography of physical activity, we are suggesting those curriculum areas relevant to the site and setting of the moving body might reflexively consider the ‘pure and applied’ assumptions they make about what, indeed, participants/students experience *richly and deeply* and ‘make meaning of’ in those experiences and, then, ‘learn’ or unlearn through the pedagogical and curriculum strategies we adopt, often uncritically.

In this paper, we focus primarily on the conceptualization of the environment and our ‘moving body’ meaning-making experience of its places, acknowledging how the other papers link to this theme and this connects to those. *Environment*, a central concern of MEC’s, it should be said, is defined broadly when the moving body is contextualized as a ‘setting’ and can range from feeling at ‘home’ or placed while playing in a local park, or at the local oval or court where we often hear about ‘home ground advantage,’ or in open-spaces such as the local bush, or beach, or in natural areas such as national parks or wilderness areas. The common denominator of these environments and their ‘settings’ are movement experiences, in times-spaces and according to various social-community-cultural and ecological histories, future horizons and prevailing circumstances. Appreciated as both a site and setting of movement and physical activity, we must remind ourselves that participation means we also constantly receive sensory and perceptual information and develop feelings and (soma)aesthetic understandings about these various environments, or spaces in which we move, play, explore, discover and ‘come to know’ or feel attached to. And herein lies how the recontextualized notion of ‘environment’ and ‘making meaning about it/them’ might assume the quality and characteristics of a ‘place’—that is a geographic location, a social locale and a consequence of the meanings we attach to that location and locale through movement and physical activity.

And herein lies the possibility and importance of a rich notion of experience (cf. a preoccupation with ‘activities’ and their performativity) of felt, proximal ‘places’ having different temporal qualities to disembodied and abstract spaces—the latter of which we tend to ‘pass through’ while the former we tend to pause in or dwell in for more than a passing or fleeting moment. Hence, the contextual importance to the moving body of the rich experience of time, in accordance with the meanings, or not, of space. The meaning-making contexts of moving bodies, is rarely considered in discussions, debates and experiences in physical, outdoor, environmental, and health educations (Brown & Payne, 2008) but is assumed in much education discourse to lie in certain ‘activities,’ such as football or netball, or kayaking or rockclimbing, and their respective contexts! Often these curricula contexts inordinately privilege skills, competencies and the performative dimensions of physical activity in a functional or instrumental perspective of sport and outdoor recreation.

Thus, in summary, despite the burgeoning literature about environment and place—particularly in environmental and outdoor educations, but also evident now in health promotion, community development and their socio-ecological formations (O’Connor, 2008), we read far less about the centrality of time (in relation to spaces/settings) and the bodily experience of it, in pedagogical efforts to enhance the bodily sources, sites and settings of ‘making meaning’ about and ‘learning’ what those curriculum areas and pedagogical strategies want us to conventionally know.

The first part of this paper highlights how any conception of the environment, as a form of place that we might sense, value or attach to as a worthy end in education, must take account of the twin contexts of the moving body in time-space and the meanings, or somatic understandings, or somaesthetics that accrue reciprocally with the ecological affordances of moving in those spaces, places or environments. Put differently, our interest lies in more richly contextualizing the embodied nature of experience as we move in, perceive and sense the environment. Without an understanding of the human meaning-making capacity of bodies in time-space, or an aesthetics of human understanding (Johnson, 2008), a large part of the 'pure' environmental contexts (sources, sites, settings) of embodied meaning-making are excluded from our pedagogical, curriculum and research development efforts. In the latter part of this paper, we explore and examine some of the 'applied' contexts in which we seek to further reveal the major contexts of the moving body, meaning, and time-space *underpinning* the applied contexts we all too briefly explore.

## **Embodied Meaning**

The meaning of meaning, and its language (Stables, 2001), however, has been neglected or avoided in the discourse of education and its research, yet is particularly salient when for example, we talk as pedagogues and researchers about the value of experience in learning. We feel it is important to consider meaning and its making, as a bodily process that often is avoided in educational discussion and debate because of its 'hidden' or invisible 'placing' prior to, or as a pre-requisite to 'learning' and teaching which, invariably, relate to the cognitive and rational understandings and outcomes that dominate educational discourse.

In this short section, we can only alert the reader to a different sense of meaning that, in some respects, is a prerequisite to formal learning. Grappling with the meaning of meaning adds another dimension, often invisible, to the notion of the making of meaning—that is that a large part of meaning is sourced in our sensations and perceptions of self, others and world and embodied in its making of self, social and ecological conceptions including, inevitably, notions of learning, knowledge, identity and actions. If meaning and its making is to be valued in education, it also needs to be retrieved in scholarly inquiry, research and curriculum and pedagogical development. Our purpose here, therefore, is to introduce and highlight the notion of 'embodied meaning.' Without it, we are forgetting a crucially important human dimension and quality required in education—what David Abram (1996) refers to as 'symnnesia'—the forgetting of the emotional basis of our being.

Mark Johnson's (2008) 'aesthetics of human understanding' is the latest in a revolutionary conversation over the past two decades that has bridged phenomenological philosophy and cognitive science (for example, Gallagher, 2005). This conversation, like Richard Shusterman's (2008) philosophical development of the notion of 'body consciousness' provides fundamental challenges to Western thought (Lakoff & Johnson, 1999) and numerous historical practices, and institutions like education, pedagogical development and learning theory. They bring into very sharp relief how notions of perception, embodied meaning and somaesthetic understanding are central to interpreting the organism-environment interaction and nature-culture relation, or lack of. Shusterman, following Dewey who for many in the philosophy of education is a major spokesperson for the qualities of experience (in education) and its democracy in schooling, emphasizes the reflective capacities of humans in disrupting the mind-body dualism that he sees as a barrier to attempts to retrieve the aesthetic, ethical and political dimensions of everyday life. For Shusterman (2008, p. 216), 'somatic reflection' is a key to a more meaningful existence in that it can cultivate 'greater acuity, awareness, and appreciation...and promises the richest and deepest palate of experiential fulfillments...' Johnson highlights the emotional and aesthetic aspects of the meaning of the body and its meaning-making capacities that, for example, have also been addressed in the primacies of 'movement' (Sheets-Johnstone, 1999) and 'practice' (Archer, 2000). Sheets-Johnstone's account of movement, in particular, the experience of self-movement, locates it in our primal animateness and makes the case for its 'in the beginning' profound epistemological significance. For Sheets-Johnstone, movement creates the qualities it embodies and that we experience. Movement, therefore, is meaning in the making and it is only through the meaning-making of movement that we might begin to better understand some of those moral dimensions of our felt, being and placing in the world. Archer's primacy of practice is elaborated in terms of the embodied sources of agency, noting that intentional sense of agency is invariably subjected to concerns about personal and social identity, noting her exclusion of the possibility of ecological identity.

Put bluntly, ‘meaning’ and its embodied making sources are central to any reflexive discussion of the underlying somaesthetic or kinaesthetic qualities of human experience, moral reasoning, ethical deliberation, agency, competence and conceptions and constructions of pluralism, relativism and democracy, including education’s contribution, or not. In education, movement experiences are eliminated from the classroom and, increasingly, from the curriculum—relegated to play time, or physical education but its practice is typically less exploratory, imaginative, expressive and more disciplined and performative. Experiential education, originally valued in environmental education, is rarely considered or promoted in our discourse, noting its corrosion by an ever encroaching technics of environmental education whose ontological (and epistemological) politics are problematic (Payne, 2006).

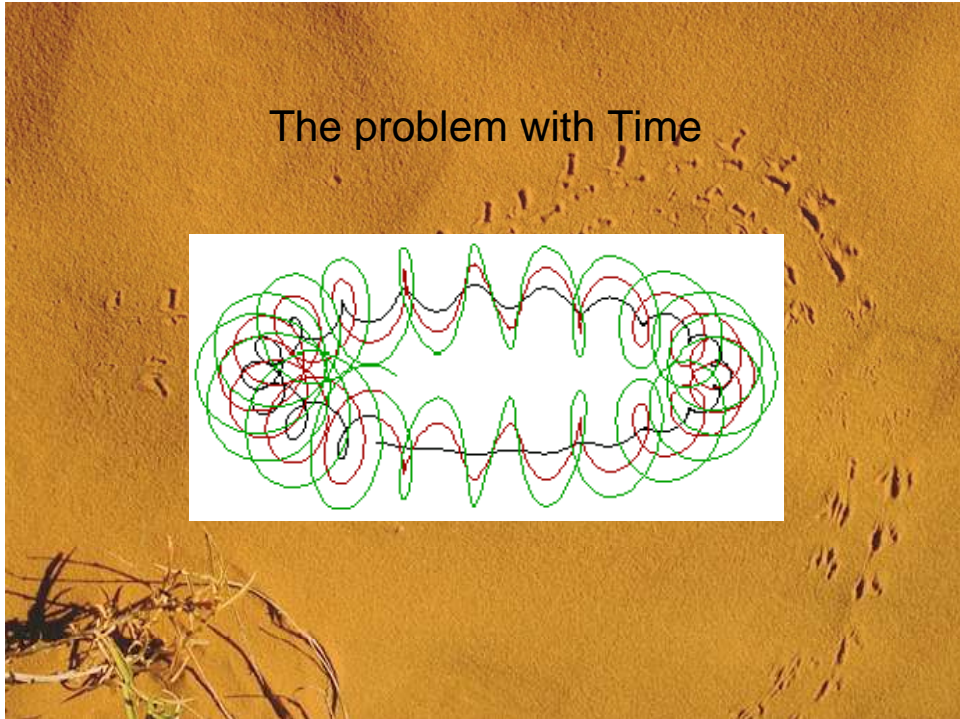
For Johnson (2008), at stake in his discussion of the meaning of meaning is the human condition for without due attention to our quest for meaning, and dealing with the meaning of life, is the cessation of efforts to address recurring problems. In examining the meaning of meaning, like Shusterman, Johnson draws considerably from John Dewey who advocated for the ‘qualities of experience.’ In the concluding part of Johnson’s (2008) book, he asks about the ‘meaning of meaning’ and critiques the objectivist theory of meaning before listing his conclusions about the meaning of embodied meaning in that quest to develop an aesthetics of human understanding. Meaning and its making are closely linked with valuing, as a process, but different to it and certainly from the values ‘product’ we often are asked to live by, or impose on others as rules, conventions or expectations. That is, while meaning and its making are also sourced in the otherwise forgotten but inviolable body, the valuing process and product, as we have seen, are vulnerable to a range of factors and forces that bring the value of meaning and meaning of value into tension.

Johnson’s (2008) list cannot be elaborated here in an educational direction. Suffice to say, it includes a number of concepts that might be considered in moving toward an ecocentric value theory. Johnson values the meaning-making body as a—biological organism; an ecology; a phenomenology; as social; and as cultural, hence a meaningful democracy of the meaning-making capacities of his ‘embodied mind’ before that conception of the relational self enters into the world of ethics, politics and democracy, as each might be considered in education and its sustainable development. The implications of such ‘inner’ and ‘outer’ notions of the democracy of meaning are to desist from treating and valuing the mind and body as two separate things; that meaning is indeed embodied and invariably placed in time-space before it can be conceptualized or converted to understanding, language and reasoning; that in our being we are metaphorical creatures; there are numerous human truths; that freedom is modest but can contribute to self-transformation; that bodies do not survive their own death; and that embodied spirituality exists.

### **Embodied meaning and time-space as a ‘placing in environments’ (or ecological phenomenology) for experiential education**

As introduced, the topic of time is rarely considered, often only indirectly, in the discourse of environmental education and its offshoots in ‘place’ education or education for sustainable development. Philosophical, as any discussion of time might misleadingly suggest, elsewhere MEC researchers have practically developed the notion of a ‘slow ecopedagogy’ (Payne & Wattchow, 2008, 2009) whose ethico-political inspiration can also be found in the ‘slow food’ resistance movement to the fast food culture where numerous parallels about various accelerations in education can now be found.

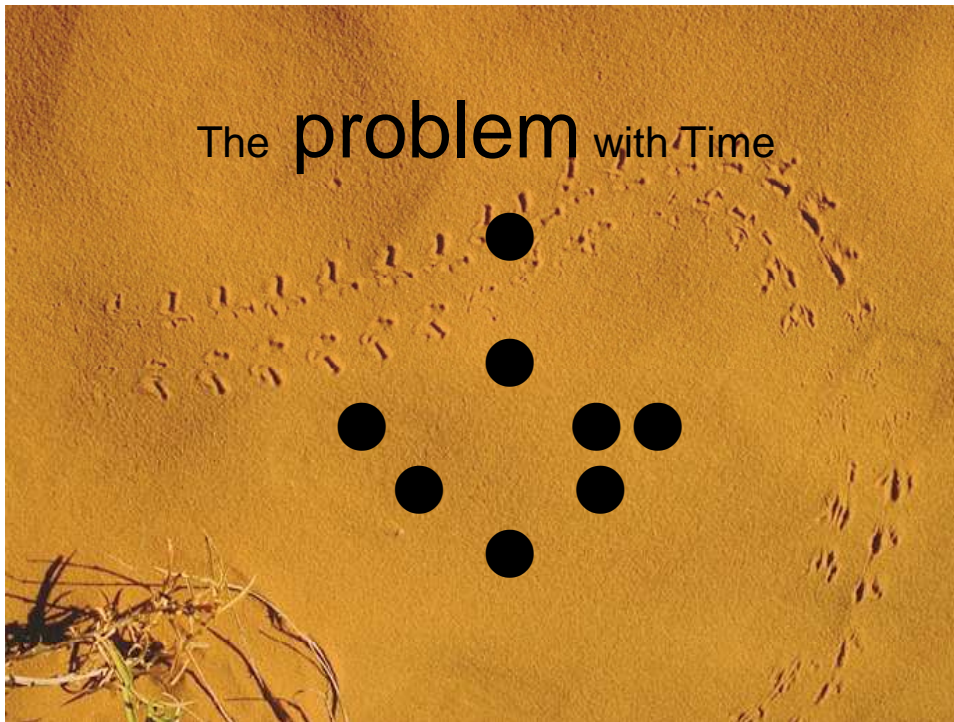
The experience of time can best be described as enigmatic (Payne, 2003) and if we treat its embodiments can be dissonant and even contradictory, rendering meaning-making a problematic context for many educational practices that seek to ‘place’ education in the environment in constructive ways. Enigmatic? To appreciate this, we represent three different broad categories of time in Figures 1, 2 and 3 that ‘experiencing bodies’ simultaneously ‘live’ often in dissonance or contradiction that, if so, create problems for any homogenized and simplified view about meaning-making and formal ‘learning/teaching’ and pedagogy. Figure 4 aims to illustrate this problem by imaging how socially constructed times (Figures 2 and 3) decomposes the durability of organic/indigenous time (Figure 1) evidenced ‘naturally’ in land, coastal and seascapes, or places. We then provide a short overview of the theoretical issues underpinning the now crucially important contexts for education of bodies moving in time-space.



**Figure 1.** Pre-modern organic/indigenous—circular, rhythmic, recurrent and ‘recyclical’ time embodied, social and cosmological ‘natural’ time.



**Figure 2.** Modern, linear, arrow-like, mechanical/measured time and bodily compliance/disciplining/governing and regulated by its socio-cultural-‘ecological’ constructions.



**Figure 3.** Postmodern, digital/blip, measured instantaneity and bodily compliance to its globalizing/abstracting socio-cultural-‘ecological’ constructions.

Salvador Dali, the great surrealist, imagined the problem of the way time is socio-culturally constructed and lived in his ‘The presence of memory’ (Figure 4). ‘Presence’ was not so much a ‘deconstruction’ of the way time was lived but more of an attempt to visually represent through his ‘paranoiac-critical’ method the uselessness of the way time had become. His ‘soft watches’ show the decomposition of melting, rotting time, noting each watch has a different depiction of linear time and one has a fly feeding on it, presumable representing the popularized notion of ‘time flies’ or ‘drags.’ They contrast with the far more durable representation of the land, coastal and seascapes and the circular, recurring rhythms of light/dark and tides that are always presented in memory. The upturned watch is rigid—we don’t see its time but can imagine how its backwardness invites many ants, like the fly, to feed on the putrefaction of increasingly useless measured time.



**Figure 4.** The presence of memory. Salvador Dali, 1931.

Paul James' (2006) tracing of the ontologies of *bodies*, *time* and *space* in different historical-social formations identifies their dominant versions in various epochs, noting that 'history' in the way James wants us to consider it represents the continuous but variable overlay of the prevailing and previous ontologies. And, importantly for the historicized *and* contextualizing purposes here, how the dominant ontologies of time and space are inextricably linked to the equally dominant epistemologies (and, presumably, methodologies) of that social formation's 'time' and 'space' relations, or constitutive conditions of places.

That is, according to James (2006), throughout our (human/anthropocentric) 'evolution' from 'tribalism,' through 'traditionalism,' modernity, and now late modernity, there has been a messy, changing but accelerating ontological flux of time and space as they have been played out in numerous embodiments of social formations, hegemonic epistemologies and privileging of ways of life and, invariably, the social constructedness and structuration of the dominant forms of social (and environmental) relations (and their recursive consequences for agents in such structures or habitats). For example, we now live highly relative versions of space-time - Starbucks' 'third-places' are blip-like postmodern spaces found in the 'everyday' (de Certeau, 1984) conveniently located and positioned 'restfully' somewhere and momentarily in-between work and home times. Effectively, postmodernity (as a condition of the private-social-global) continually gives us virtual space-time and hyper-relativized instantaneity in multiple spaces that have less to do with socio-geographical settings and placings (I check my email while participating via video link in a virtualized 'face-to-face' committee meeting). My Space, the globally popular and far-reaching 'social networking site' exists every where at any time—'friends' are not presenced, knowable or definable but constitute, apparently in this globalized 'everyday,' an abstracted personal and social 'good'.

Alberto Melucci's (1996) metaphors about the overlapping of phenomenologies of time alerts us to the potentially pathological consequences of what he refers to as 'time dissonance' (Figure 1, 2 and 3) where, regularly, in contemporary fast digital/blip life (Figure 3) we simultaneously live many versions of disembodied time disassociated from its places. Echoing James, Melucci (1996, p. 12) characterizes these different times as, first, the (premodern) recurring and recycling of memory and project (Figure 1), akin to David Abram's (1996, p. 206) notion of 'presence' (the spatial conjoining of past, now, future, compared

with ‘present’); second, the (modern) linear projection of arrow-like quantified and measured time (Figure 2) as an intention and a goal, akin to schooling’s disciplining timetable and calendar; and, third, the now exalted (postmodern) condensation of time to the digital blip, or dot (Figure 3), in which we (quickly/fast) lose ourselves in disconnected fragments of time now clearly separated from space and potentially place (Figure 4). Melucci’s ‘playing self’ points to the breakdown of the links between inner, social and cosmological rhythms and the dissonance they have become. Displacement or deplacement are consequences which some environmental and outdoor educators now seek to retrieve, as demonstrated by, for example, the notion of a ‘slow ecopedagogy’ that seeks an embodied form of ‘reconciliation’ of the biological/nature experience of times with its modern and postmodern social constructions of the fast arrow and digital blip (Payne & Wattachow, 2008, 2009).

The discontinuities and dissonances of time, exacerbated by its socially constructed divorce from bodies and their spaces/places, leads Melucci to argue as a cultural psychologist, invites the postmodern elevation of anxiety, suffering and illness and a social condition fraught with identity breakdown and social insecurity, let alone environmental alienation and displacement. Minds are truly rendered autonomous and independent of the bodies they inhabit that are disconnected from the environments in which those bodies are meaningfully placed. Minds, indeed, do become ‘spaced out’ in this intensified abstraction and individualized disemodiment of the social and ecological conditions of the world we have globally ‘rehabited.’ Dire in its projection, and our interpretation of it, Melucci’s diagnosis has a ring of truth in it when we consider the escalating emotional costs and mental health problems of young adults and teenagers around most parts of the western world (for example, Elliott and Lemert, 2006).

### Applications (Gardens) in Context

Through drawing upon four forms of social gardening, namely Farmville (a social gardening online movement), Telegardens, school gardens and home gardens, we consider the intersections of environment-place and time-space within a broader social ecological framework. In presenting this case in ‘context’ we gesture towards a transdisciplinary understanding of environment-place signified by time-space.

#### Farmville

| Time                  | Place                       | Body          |
|-----------------------|-----------------------------|---------------|
| <i>Instant (Fast)</i> | <i>Virtual (everywhere)</i> | <i>Remote</i> |

Approximately 10 million people used Farmville in the past month alone (August 2009). Farmville exists in a global virtual environment [[http://en.wikipedia.org/wiki/FarmVille\\_\(Facebook\)](http://en.wikipedia.org/wiki/FarmVille_(Facebook))] where a pseudo garden can be plowed, sown, grown and harvested in less than 24 hours (see Figure 5). For example, in the space of one hour Amy (co author of this paper) was able to create (sign up for free via Facebook), plow, sow, grow and harvest crop which resulted in receiving 800 gold coins allowing her to buy a cow. Five hours later the cow was ready to be milked and with the click of a button she received another 500 gold coins allowing her to buy a chicken, more seeds and the invitation to buy more land. There is also the option to use real money to buy gold coins in building your pseudo farm alongside friends (which Amy currently doesn’t have).

Social networking spaces such as Farmville are real businesses with the end goal of achieving substantial financial profits. Farmville is not unlike other social networking sites such as [Second Life](#) (15 million users) and [Farmtown](#) (14 million users). When talking to several primary school aged children they said they enjoyed Farmville and similar programs because in their minds it ‘helps them look after crop’ but more so they ‘enjoyed buying stuff’. This program though is not only restricted to young people with a significant number of adults participating. For example, university students often comment (in passing) that these programs are convenient as they can do it anytime of the day as well as ‘be creative and focus on me time’ as they refer to it. This everyday existence is consistent with a fast food culture where mean making is centred on consumption possibly feeding what Hillcoat and Rensburg (1998) described as the ‘the empty self’.

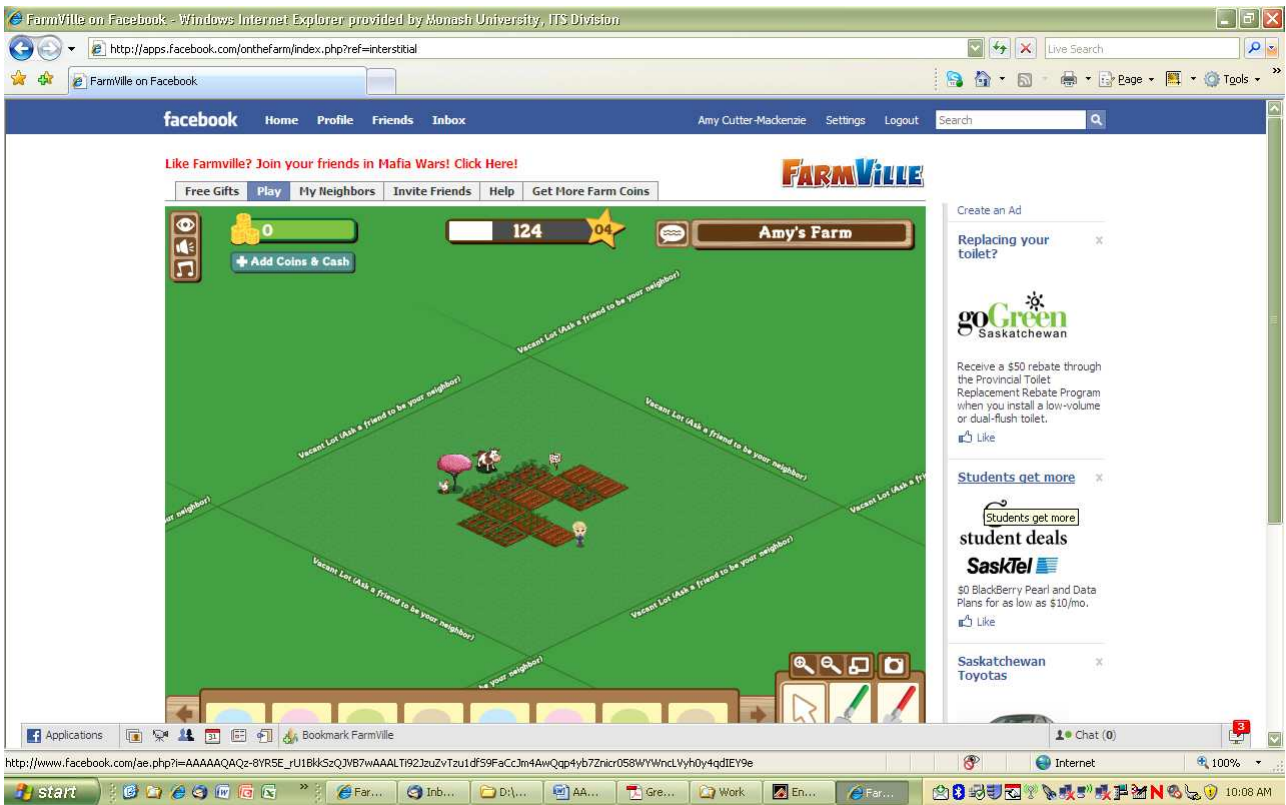
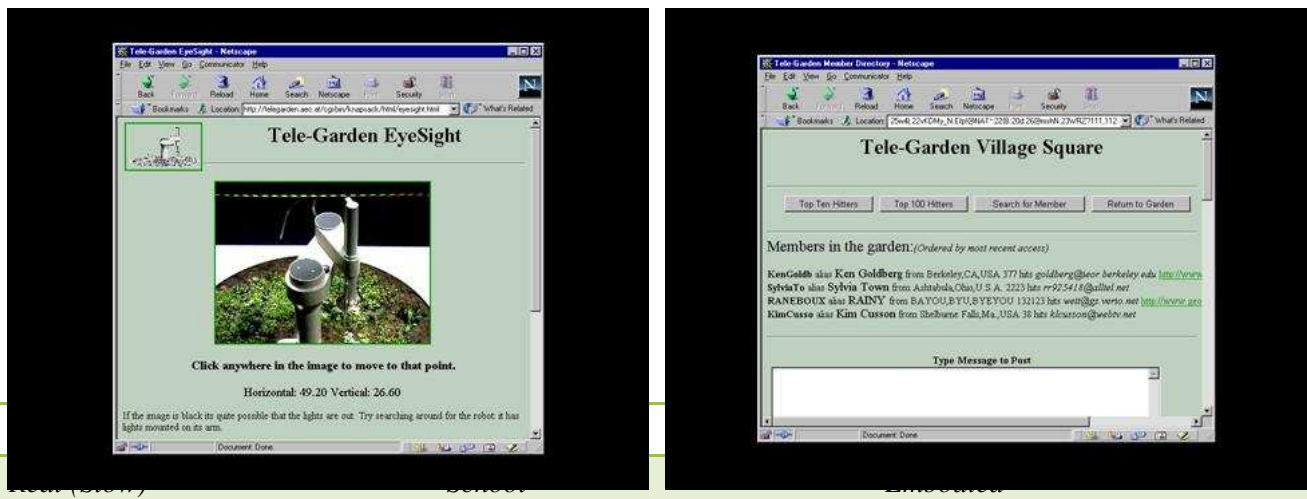


Figure 5: Amy's Farm in Farmville

## Telegarden

| Time       | Place                | Body   |
|------------|----------------------|--------|
| Intangible | Virtual (everywhere) | Remote |

The Telegarden was developed in 1995 at the University of Southern California and remained online until 2004 (see <http://www.ieor.berkeley.edu/~goldberg/garden/Ars/>). The Telegarden operated in real and physical time. It allowed online users to perform physical actions through the use of a web interfaced robotic arm to view, sow and water plants (see Figure 6). The site also had an inbuilt chat room. The creators of this technology claimed that their goal was ‘to foster community (not unlike a community garden) by making users aware of each other, and aware of the impacts of their actions on the garden and other users’ (Kahn, Friedman, Alexander, Freier, & Collett, 2005, p. 2212). Despite their well meaning intentions, accordingly to Kahn et al. (2005) only 13% of participants<sup>1</sup> engaged in conversation associated with nature, either connected to the Telegarden and/or other gardening (or related) experiences happening in the participants everyday lives. The creators said that the ‘Telegarden was more successful in connecting people to other people than connecting people to nature’ (Kahn, et al., 2005, p. 2214).



**Figure 6:** Telegardening

Gardening programs are currently in vogue in schools around the world as teachers and schools seek pedagogical approaches to engage students in experiential learning and work towards tackling societal concerns such as childhood obesity and sustainability (Cutter-Mackenzie, 2009). While gardening programs have become progressively more common, Miller (2007, p.16, cited in Relf, 1992, p. 204) claims that ‘one of the areas of human culture most neglected by social science and the humanities is the garden’.

Notwithstanding, according to Lekies and Sheavly (2007), the benefits of the ‘children’s garden movement’ has become more compelling for schools. Myriad benefits include positive influences on student health and wellbeing, environmental attitudes, academic performance, physical activity, and social skills. The desire to enable children to experience ‘slow,’ or less technologically focused experiences (Payne, 2003; Payne & Wattchow, 2008), and to address concerns that children are growing up with what Louv (2005) describes as ‘Nature Deficit Disorder,’ are additional drivers that have led teachers and communities to embrace school gardening programs. With that in mind, Wake (2008, p. 432) argues that further research is needed with respect to ‘what children are looking for in a nature connection, if indeed they are looking’ in the context of

children's gardens programs. She maintains that there is a tendency for adults to romanticize nature and utilize this to legitimize children's interactions with nature through garden programs.

Wake (2008) further contends that children's garden programs are typically dominated by adult agendas and discourses, rather than focused on children's needs and interests in garden spaces. She claims that children's gardens are often designed and maintained by adults with children merely visiting them for activity led experiences. She further alleges that the garden movement has 'always aligned itself with promotion of healthy living for children through exercise, exposure to natural elements and the potential to learn about and even grow healthy food for themselves' (Wake, 2008, p.430). Existing research echoes similar sentiments (Miller, 2007; Ozer, 2007), with Ozer (2007, p.861) stating that 'it is important that inquiry on school gardens extend beyond nutrition to the potential effects of the psychosocial and academic development of youth and on the school as a setting for development.' That said, opportunities for cultural learning and inquiry through school gardening programs have seldom been discussed and/or explored in the literature. Indeed, this gap in both practice and research led to the development of the multicultural school gardens program.

Recently Cutter-Mackenzie (2009) published an article in a special issue of the Canadian Journal of Environmental Education about the multicultural school gardens program in Melbourne Victoria. An Australian environmental education nonprofit organization (Gould League) implemented the program in disadvantaged (low income) schools that used food gardening as a focus for implementing a culturally focused environmental education program. While the program includes the well documented educational, social and health benefits of growing food, gardening and cooking are also utilized as leverage in learning about culture, language (English as a Second Language), and environment.

Alongside the program's implementation, a combined methods research approach is being applied to gauge children's learning experiences as program participants. Part of this process involves children researching their own practice, accompanied by researcher interviews and observations with students and teachers. This research reveals how culturally diverse schools with high proportions of migrant and refugee families are creating engaging garden spaces, leading to a strong sense of belonging among students who were formerly dislodged from their birthplaces. Cutter-Mackenzie (2009) provides *food for thought* with respect to the potential for children's gardening to transcend language and cultural differences.



**Figure 7.** Multicultural school gardens

## Home gardens

| Time               | Place       | Body                   |
|--------------------|-------------|------------------------|
| <i>Real (Slow)</i> | <i>Home</i> | <i>Deeply Embodied</i> |

The home garden has the potential to be a deeply embodied and meaningful experience. It too represents a form of social gardening and learning. In 2006, Amy and her family (husband Chris) recycled a 1940s house that was scheduled to be demolished by the existing owners (see Figure 7). Instead, the house was recycled and relocated to Bittern on the Mornington Peninsula (adjacent to a large bush land reserve). The house was positioned to maximise its solar passiveness. The house has now taken on a 'green design', including a kitchen and decks built from salvaged timber, large water storage (tanks), grey water recycling system and a yard that is 100% grass and weed free. Their yard is made up of indigenous plant and tree species where they have used the concept of 'garden rooms' to create imaginative play and thinking spaces, with a story circle, frog pond (old bath tub), fairy tank garden, lizard lounge and food garden. This ¼ acre block went from barren to established indigenous bush gardens in 4 years providing an extended green coordinator for local bird and wildlife. It is also a deeply personal site for ecological learning which Payne (2005) has previously identified.



**Figure 7.** Amy's real garden

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## **Footnotes**

<sup>1</sup> There were 347 participants involved in the Telegarden study with 22,952 postings analysed over a three month period