In celebration of the invisible

by John Parry

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Abstract

This paper calls for giving a place to the notion of the invisible within knowledge building. How can we provide for the 'yet to be thought' and what currency do we give to learning that occurs without any deliberate third party intervention. From examples of zero in context (Bateson); the potential discursive gap (Bernstein) and what visibility conceals in cultures (Strathern) to the weakening of the environmental and cultural commons (Bowers) and the role of life narrative (Goodson), the paper sets out the case for developing Knowledge Forum within a collaborative learning space being envisioned in the author's home town of Lewes, England.

Key Words: culture, knowledge, the unthinkable, sustainable capacity, craft knowledge, life narrative.

University of Sussex.

Correspondence to jmparry@btinternet.com

The Sussex Institute

Essex House

University of Sussex

Brighton

BN1 9QQ

ENGLAND

INTRODUCTION

The Summer Institute has set the challenge of whether young people can, 'actively seek knowledge of concepts beyond their current understanding. Can they exert epistemic agency and take collective responsibility for knowledge advancement – perhaps through a self organising network of team mates committed to deep understanding?' This begs the question of what is meant by deep understanding and I offer a particular version, namely the understanding that comes from a mix of the 'invisible', the local and life narrative.

The invisible refers not to that which is truly invisible and hidden but more to the peripheral – to the side – not mainstream and yet with potential.

First, I will establish a framework regarding the value of place, tradition, intergenerational knowledge and ontological security in relation to knowledge building networks with a particular emphasis on education for sustainable development.

Second, I will briefly relate the above to an emerging 'learning space' being envisioned in my home town of Lewes, East Sussex, England.

SETTING THE CONTEXT

The cusp of environmentalism becoming mainstream is upon us and for those who have been championing such issues for over 30 years, this is a welcome relief tinged with concern that some of those jumping on the green bandwagon may be doing so for their own ends of profit, control, or both.

As we move into uncharted (and rising) waters, no-one can have the answer to, as yet, unprecedented events. Much of the current and welcome approach by Al Gore (2006) and others is good common sense of what thoughtful people have been doing for some time. However, the resulting and perhaps unwitting re-iteration by some climate change and peak oil enthusiasts of 'correct' behaviours beamed at young people, could paradoxically undermine the very thing that so many of us have been striving for over many years.

Presentation of facts does not guarantee changes in behaviour. What is required is inter-generational capacity-building working alongside students in sensitive and pioneering ways and this is where Knowledge Forum may have something important to offer through *collective cognitive responsibility*. (Scardamalia, 2002). As Gough and Scott (2003) note, 'information, communication and pedagogy do not contribute to learning or capacity building if they are false, useless to the recipient, domineering or exploitative. Some learning occurs without any deliberate third party intervention.'

THE POTENTIAL OF THE INVISIBLE

Bateson (1979) reminds us that information, unlike the laws of conservation and energy, can be lost and subject to negative entropy. What isn't written down or passed on will become blurred or lost for ever. He offers an intriguing insight into the invisible or the notion of zero:

> Paradoxically, the deep partial truth that 'nothing will come of nothing' in the world of information and organization encounters an interesting contradiction in the circumstance that zero, the complete absence of any indicative event, can be a message….the letter that you do not write, the apology you do not offer, the food that you do not put out for the cat – all these can be sufficient and effective messages because zero, *in context*, can be meaningful; and it is the recipient of the message who creates the context. This power to create *context* is the recipient's skill. (Bateson, 1979: 47)

One possible example (Parry, 2001) of the invisible creating context concerned research in the early days of multimedia computers in the mid 1990s when various student groups were invited either to create a multimedia storyboard for a pupil-authored CD-ROM or to work on more traditional wall displays concerning a local wildlife area near to their school. Each separate group (storyboarding or conventional) undertook the same programme of study linked to a local wildlife site.

A question was posed in order to test whether the students fully understood the principles of management underlying each of these wildlife sites with the following result:

	Conventional groups %	Storyboarding groups %
Does not show understanding of the main principle	**54**	35
Mixed response	5	7
Shows an understanding of the main principle	41	**58**
	100	100
n=	(148)	(148)

Spearman correlation = 0.19, p= 0.0007

Significantly, the management principles had **not** been directly articulated by the teachers and the only difference was in the mode of learning (or the recipient's abilty to create the context if we follow Bateson) mediated by the final form of delivery of content – CD or wall display. Caution must be exercised with such small numbers but the degree of significance (the Spearman correlation) suggests that the pupils in the storyboarding classes somehow gained insight into the wildlife site in terms of its 'wildness' and management than the more conventional classes. Their engagement with the demands made by the storyboarding *process*, as opposed to creating written material for a wall display, appeared to lead to a deeper understanding of some core principles which had not been ostensibly 'taught.'

Had the mediating storyboarding process in some way helped the pupils become more able to create context - in this case, the connection between actions on the site and its very 'being' in terms of a managed sense of wildness?

Another finding of the research (Parry, 2001) related to a time delay between students authoring materials for the CD-ROM and experiencing the final product. The recall and response to the final material was positive, immediate

and unexpected. At the time of creating the material, through putting together storyboards of sequences involving text, sound and pictures, two teachers separately reported that it was, 'as if the storyboarding process was going round the students' heads at night.' They would often return the next day or week with renewed energy and ideas. Is this another form of *epistemic agency* mentioned by Scardamalia (2002) with regard to comments by students regarding the colour of leaves?

> What was impressive, as the teacher reports, is that the work in Knowledge Forum and the visit to the maple-syrup farm were not closely related in time. She was surprised and delighted that a relationship was discovered as she had not anticipated this herself. This juxtaposition of theory and relevant evidence suggests *epistemic agency*. (Scardamalia, 2002)

Let me explore the notion of some learning occurring 'without any deliberate third party intervention' a little further. Oakeshott (1989) observed that values such as patience, accuracy, economy, elegance and style first dawned on him through a gymnastics teacher for whom gymnastics was an intellectual art. Oakeshott claims to have learned such things not as a result of anything the instructor said, but because he simply was a man of patience, accuracy, economy, elegance and style. The 'unsaid' had powerful consequences.

A world of deeper understandings, meanings, moral and religious beliefs and relationships is the world that Oakeshott believed had to be transacted between the generations, in which the 'ordeal of consciousness' was understood but which was a learned and historic condition, not a natural one.

Such concepts run counter to our current pre-occupation with visibility dedicated to educational productivity and results. Such aims carry with them the dangers of re-shaping teaching and schools in order to produce the most efficient systems for the delivery of what Bernstein (1971) called 'collection code' knowledge. These systems, based on teaching, techniques and regulations, undermine learning and teaching which could become:

> ..increasingly routinised…as teachers are subjected…to tighter control by outsiders, better forms of accountability, more sophisticated surveillance of outcomes, and greater reliance on measures of competence and performance. (Smythe and Shacklock, 1998)

This leaves little room for innovation, I suggest, and even less for deep understanding. Worst still, it is likely to spawn a managerial reaction to technological change in which the emphasis is, for example, on productive use of computers to teach pupils facts or to mark multiple choice questions to test the learning of such facts. Such an approach sells our children short by providing currency for an idea that pays no attention to the fact the current rate of introduction of new things, such as computers, exceeds our ability to give them any cultural meaning.

> Fireplaces and old kitchen stoves evoke a sense of sharing, sustenance and shelter to those who have grown up with them. Baseboard heaters and microwave ovens to do not.
> …we either grossly exaggerate or totally ignore the risks of new technologies because we are unable to develop a reasonable perspective or approach to handling them…it is not simply a matter of people being behind the beat of technology but of technology determining the rhythm with which people are trying to synchronise. (Noorgaard, 1994: 57)

THE POWER OF PLACE

In the same way that Papert (1980) used gears not only to help mathematical ideas but as 'objects think with', I would argue that Knowledge Forum linked to local community spaces offers a process – a way in to a special cultural meaning – that of the environmental and cultural commons articulated by Bowers – especially in relation to rapid change and ontological security in the context of sustainability, environmental degredation and climate change.

Such a constructive approach, grounded in the perception of physical and social experiences, would allow learners of any age to make jumps and connections, not only between their perceptions, but also <u>other</u> people's perceptions of physical and social experiences.

An open community space close to a school represents a physical periphery which can promote alternative meanings as well as alternative approaches to learning. But such a site must not become a self-contained unit of known information. As Dewey (1916:12) claimed, 'while local or home Geography is the natural starting point in the reconstructive development of the natural environment, it is an intellectual starting point for moving out into the unknown, not an end in itself.'

Such an 'open systems' view of curriculum matches current thinking in science as it moves away from a mechanical view of the world to one of complexity, change, risk and emergence.

Bernstein (1996: 1-81) takes Dewey's notion further by distinguishing between two classes of knowledge, the thinkable and the *un*thinkable, or put in several other ways, 'the mundane and esoteric, the material and immaterial, the knowledge of the other and the otherness of knowledge.' I would add the visible and invisible and the accountable and unaccountable.

The control of these knowledges remains, crudely, in the hands of schools in terms of the thinkable and in the 'upper reaches' of the higher education systems in terms of the *un*thinkable. Bernstein argues that the special meanings given to these knowledges are predicated on different, specific divisions of labour and because of this are themselves open to a potential gap. He calls this the *potential discursive gap,* or space, which can become a site for alternative realisations of the relation between the material and the immaterial.

> The potential gap or space I will suggest is the site for the unthinkable, the site of the impossible, and this site can clearly be both beneficial and dangerous at the same time. This gap is the meeting point of order and disorder, of coherence and incoherence. It is the crucial site of the yet to be thought. (Bernstein, 1996:44)

Such potential will always be regulated. Power resides here because, as Bernstein puts it, 'the gap itself has the possibility of an alternative order, an alternative society and an alternative power relation.'

So to return to the notion of a local common piece of land and its potential as a place of cultural meaning, its peripheral status may hold the communal seeds of a *potential discursive gap* for the 'yet to be thought'. I see Knowledge Forum playing a significant role in such a space and will illustrate this in my presentation.

Other notions of accountability and visibility are explored by Strathern (2000) in which the notion of visibility in cultures (in terms of outcomes, accountability and performance indicators) is questioned. What does visibility conceal? Strathern employs her anthropological knowledge of visual practices engaged by people in Papua New Guinea (linked to individual status, trust and the 'ability to deliver') to throw an 'invisible spotlight' on teaching itself.

Her argument is that the transparency of communication is not about enabling mutual creativity as in the experimental researcher's situation but is more about clarity and easy assimilation for the student. However, perfect clarity as an audited goal leaves little room for students to absorb, digest and make relevant to themselves what they have understood. So the growth that turns information into knowledge is not a simple consequence of clarity itself. If understanding involves process at all, then it must be predicated on some kind of self knowledge that takes doubt, ignorance, hesitation, confusion or simply despair at digesting all the facts, as the **starting point**.

Such a framework (by no means exclusive) may be necessary before pupils can actively seek knowledge of concepts beyond their current understanding, epistemic agency and the collective responsibility for knowledge advancement.

Dewey's Laboratory School in Chicago, opened in 1896, was dedicated to sharing the complexity and uncertainty of the modern world with children. Setting aside Dewey's apparent lack of skills as an administrator, (Ryan, 1995; 120) the school was organised so as to be part of life, not just a preparation for it. Problems and experimentation were its staple diet.

> ‘The school was a network of meanings rather than a collection of spaces in which children read, cooked, played, painted and whatever. The ‘organisation’ Dewey had in mind was a kind of balancing of the school’s ties to the entire social environment; cooking in the school kitchen linked the child both to home where such activities went on, and to the countryside, where food was grown, and thus to the school’s own physical environment.’ (Ryan. 1995: 139)

But Dewey has come under criticism recently through the work of Bowers (2006) who raises important issues to do with language and his call for the renewal of the ‘cultural and environmental commons’. Commons here refers to what is shared by members of a local community largely outside the framework of a money economy – the periphery; a potential discursive gap perhaps?

In a synthesis of international city benchmarking and indexes, Clark G (2006) lists the top six measures of success drawn from a wealth of indexes as to what makes a successful city. Amongst the likely measures of image, transport, business climate, presence of global players and security, it is interesting to note the presence of a sixth measure named simply *je ne sais quoi.* This is described as:

> Ultimately, many indexes argue that a city relies in the end on that special, mythical something that cannot be created. (Clark, 2006)

Does this represent a discursive gap? Is part of myth-making, the unthought? If hard nosed business indexes take such ideas into account, then shouldn’t education? But do we possess the vocabulary to articulate such notions within the context of sustainability?

In ideas reminiscent of Noorgard’s old kitchen stoves, Bowers sets out guidelines to help students develop the vocabulary and understanding of relationships needed to counter the failure of scientists and environmental

educators to ask the following question. 'Why is the culture that is overshooting the sustainable capacity of natural systems being identified as the better adapted - and why cultures that have survived for hundreds of years without destroying the natural systems they depend upon are being identified as less well adapted.'

By way of example only, Bowers' guidelines include developing the language and understating of the differences between:

- the experience of a meal cooked and shared with the family and an industrially prepared meal.
- practising a craft and having to purchase a ready made object.
- work that is returned as part of a mutually supportive community activity and work that is done in order to acquire money.

Bowers' key point is that the metaphor 'environment', so often associated with 'plants, animals, oceans, streams, forests, weather patterns and so forth', should include both natural systems as well as cultural beliefs and practices that can help take us further into relationships, processes and possibilities in ways that the word 'environment' fails to do.

Wildness, or even a sense of wildness, could be a key here.

> Wildness is the universal songline, sung in green gold, which we recognise the moment we hear it. What is wild is what drives the honeysuckle, what wills the dragonfly, shoves the wind and compels the poem. Wildness is insatiable for life; neither truly knows itself without the other. (Griffiths, 2007)

These complex notions (whose very complexity Dewey would have embraced) call for a move away from 'critical analysis and short term efforts to reverse environmental damage to helping students recognise the community-centred possibilities that represent alternatives to consumer-dependent lifestyle.' (Bowers, 2006:13)

Bowers points to the importance of local culture, mutual support systems, and inter-generational knowledge which he claims Dewey failed to acknowledge.

> 'Instead of recognising the world's diversity of knowledge systems, Dewey and his followers have argued that there is only one legitimate approach to knowledge: experimental enquiry…nowhere in his writings do we find him acknowledging that there are other cultural ways of knowing that enable people to live in sustainable relationships with their environment.' (Bowers. 2006: 121)

Let me summarise at this point. The framework I am suggesting for deeper understanding, epistemic agency, and collective responsibility for knowledge advancement (perhaps through a self-organising network) includes the following elements:

- Pupils should deal with real problems however complex they may be.
- The *un*thinkable and 'yet to be thought' cannot be itemised and conveniently ticked off as 'learned' so we need to articulate and celebrate structures that promote the unthinkable, risk and emergence.
- The power of the 'invisible' should be taken into account in our education systems.
- We should help pupils understand that the 'power to create context' is in the recipient's skill.
- Local community spaces may prove fruitful arenas for the above in relation to collective responsibility for knowledge advancement through their cultural meaning.

Such spaces tend not to be commodified and often support necessary habits (traditions) such as coppicing and pollarding. Craft knowledge and skill, such as flower identification and bird ringing also have their place here. Bowers argues for the re-instatement of language that promotes the non monetized value of such actions and is critical of Dewey's 'blanket rejection of all habits (traditions) that are not part of the immediate problem-solving process.' Bowers acknowledges the need for, and the ability to identify which, traditions should be conserved and which traditions need to be reformed or rejected entirely.

Giddens (1991) throws further light on tradition versus habit when he writes that, ‘traditions of behaviour have their own moral endowment which specifically resists the technical power to introduce something new.’

Here then is another ‘silence’ – in this case of past generations whose, ‘works and norms contained in their practices influence the actions of subsequent generations to whom they are unknown. The normative core of tradition is the inertial force which holds society in a given form over time.’ (Shils, 1981)

PLACE LINKED TO NARRATIVE

This intergenerational aspect is worth taking further in terms of what Goodson (2006) calls narrative learning – ‘the kind of learning that goes on in the elaboration and ongoing maintenance of a life narrative or identity.’ In language that echoes Bowers, Goodson writes of ‘motifs’ for narrative learning such as the journey, quest or dream – ‘central motifs for the ongoing elaboration of a life mission…which require a different form of research and elaboration.’

Goodson (1998) also writes of the need to locate such ongoing narratives through place and collaboration:

> The reasons for location and collaboration arise from two particular features of life stories. First, the life story reflects partial and selective consciousness of subjective story-building and self-building; and secondly, it is a contemporary pinpoint, a snapshot at a particular time. Collaboration and location allow us to get a finer sense of the emergent process of self-building and story telling and allow us to provide a social context of the time and space in which the story is located.’ (Goodson, 1998:186)

I wish to argue that sensitive and threatened areas may well be useful starting points to engage young people in collective responsibility for knowledge advancement working alongside a variety of experts and lay people alike and I will illustrate this in my presentation through my home town’s attempts to build such a ‘collaborative learning space’. This presentation will include current work of adults with learning disabilities alongside primary and secondary school pupils related to local wildlife sites in England and France.

As Bowers comments, such a focus on a common piece of land is not solely directed to one place:

> 'The destruction of habitats are not just isolated situations but have an impact on all living systems that are interdependent with neighbouring systems. It's an interconnected world of ecosystems and cultures, and developing an ecological form of consciousness, which will differ from culture to culture, requires a process of education where questions can be asked, comparisons made, silences made explicit, and where different practices and values can be assessed in light of a world situation where progress can no longer be taken for granted. And the mediating role of the teacher and professor is to help students understand how the commons they rely upon and take for granted is being altered as the industrial culture encloses more aspects of their daily lives.' (Bowers, 2006: 140)

Knowledge Forum is perfectly placed to service such a mediation, not least because of its ability to allow for 'silences' among less articulate students and to give them time to form ideas and hypotheses. As one English 9 year old commented in a recent pilot research project (Macdonald and Parry, 2007), 'it's brilliant because you can just see what people think and you might get an idea from them and you might write what you think.' Another noted that it was really good to have computers, 'as you don't have to wait with your hands up and your answer doesn't drift away.'

My concept, and the research I seek to develop, is to expand Knowledge Forum's use within a local environmental and cultural commons setting so to lay down tracks of knowledge and responses to change (some personal, many collective) as building blocks towards a self organising network of team mates committed to deep understanding as a contribution towards the reversal of overshooting sustainability.

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