Action Replay: Theorising the Enhancement of Learning Experience through Portable Technological Delivery Systems

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Learning technology is increasingly being used to enhance the educational experience of students through web-based resources, audio, video, CAA (Computer-Assisted Assessment), interactive resources, and databases. But whilst these technologies can be used to complement traditional teaching methods they often do little to challenge to the standard formats and contexts of delivery. The aim of this paper, therefore, is to explore how portable technological systems (e.g. ATGs [Audio Tour Guides] PDAs [Personal Digital Assistants] or mobile phones) might be employed to question the various forms of information delivery both in and beyond certain normalised arenas of educational reception (e.g. in the lecture theatre, seminar room, shopping centre, city street and arcade).

Various forms of educational space (both actual and potential) will be examined. Of particular interest here will be the spatial ideologies that are currently dominant. Theories of spatial sense-making (de Certeau, 1984) and architectonics (Lefebvre, 1974) will be used to provide methodological material for achieving an understanding of how educational experience is mediated by and through certain "given" and "expected" spatial environments. In particular, we will investigate the way in which the lecture room is framed for the student by the power structures of the built environment of the university. How the lecture space has educational influence will then be explored. This part of the discussion will also include some thoughts about how educational experiences are mediated though the spaces of the museum. These practico-theoretical contexts will then be used to provide a platform for two speculative proposals.

The first proposal is to alter the format of information delivery by using such things as ATGs [Audio Tour Guides] PDAs [Personal Digital Assistants] or mobile phones to enhance student experience within the spatial paradigm of the university. In this case whilst the student may be taught literally within the spatial field of the university, one idea is that by using certain technological delivery systems we may begin to remove the student (at least in thought) from this specific context. And this in turn may make it possible to play with a range of spatial differences by enhancing awareness of the assumptions to which the student is subject when encountering the cultures of the actual/virtual, local/global, public/private, and accessible/segregated. (Dovey 1999) For if human beings, like other animals, are guided by the need to make and mark, plot and plan, situate and sign, significant spaces, then more innovative forms of teaching are required to expose how these spaces work to influence our anthropological, sociological, political and design understanding of the world.

The second proposal is to shift the context of delivery by changing learning spaces so as to transmute "communication into an original journey." (De Certeau, 1984: xxi) In this instance hand-held technologies (e.g. ATGs [Audio Tour Guides] PDAs [Personal Digital Assistants] and mobile phones) could be used in spatial contexts that move beyond the standardised fields of educational encounter. We will look at how these technologies might be employed to teach in and through the public arena of the high street, shopping centre or arcade. (Benjamin 2002) The reason for using these spaces to teach in is that the very cultures of consumerism that we often need to analyse (whether in anthropology, sociology, politics or design) is enacted in this context. This is important because by moving through and teaching in this actual space we can achieve a very different form of analysis of material culture.

Introduction

Learning technologies are fast becoming ubiquitous in a number of contexts. They are used in traditional educational environments to enhance teaching and learning experiences in lecture and seminar spaces; moreover, they are employed by students and the public on visits to museums, heritage locations and historic houses. The debates and discussions around the use of these new portable technological delivery systems (e.g. ATGs [Audio Tour Guides] PDAs [Personal Digital Assistants]) often revolves around their educational value, particularly in terms of how they may give rise to student/visitor engagement (or disengagement). This paper seeks to challenge some of the current assumptions that surround their use. It will do two things. First, it will examine the way in which certain arenas of reception (from the lecture theatre to the museum) have normalised certain forms of educational experience. The idea here is to rethink and reconfigure these traditional spaces via a more creative use of the technologies on offer. This will be achieved by the disembedding effect of technology. For example, by taking the ideological construction of the lecture theatre and museum and bringing them up against new technologies we can make the lecture theatre take on some qualities of the museum and the museum take on some of the qualities of a lecture theatre. Second, it will show how certain new technologies can be employed in alternative contexts. The

idea here is to move these technologies out of and beyond the environments in which they are normally found and put them into new spatial environments. For example, we might temporarily abandon the lecture theatre and museum as educational spaces and investigate how, with the help of technology, we might bring teaching into new arenas (e.g. the high street, the shopping centre and the arcade). For it is only this sort of change that will allow us to know what it is like for our deepest educational assumptions and expectations to be challenged.

Challenging the Space of the Lecture Theatre

One of the pivotal issues of educational experience concerns the way in which space and time are planned and negotiated. For example, if we take the spatial architectonics of the lecture room, we find that it sets up a situation that re-enforces an educational ideology that is for the most part detached, impersonal, and highbrow. This ideology is put in place precisely to help create a respectful distance between the student, the lecturer and the material that the lecturer is presenting. The lecturer stands whilst the students sit. The lecturer speaks from the front of the class. The students are placed in ordered rows. The lights are perhaps lowered in such a way that only the lecturer is lit. Now this is not to say that the lecturer is deliberately colluding with the dominant educational ideology of deference and respect. Rather, it is to comment on the fact that it is avoiding the governing educational model of awe and reverence is difficult given the way in which the lecture theatre itself is spatially framed. For the lecture theatre is designed to reproduce power relations. The space of the lecture theatre itself is a key factor in helping to declare the status of the lecturer and of the ideas the lecturer advances. In short, it creates a situation in which the power thus embodied enables the person teaching, to quote Rorty:

"to define and control circumstances and events so that one can influence things to go in the direction of one's interests" (Rorty 1992: 2)

But it is not just this spatial structure that allows power to be mediated, it is, in the mind of the student, the association of "related" spaces that is at issue. Let us call this inter-spatiality. By "inter-spatiality" we might mean that a given space, once declared as (say) a lecture theatre will forged a link in our thoughts with analogous spaces. In other words, the space of the lecture theatre cannot be understood without the potential dialogue it has with these other related spaces and their concomitant functions. For instance, the space of the lecture theatre may be bound up with subconscious thoughts about the space of the church (where light is minimal and reverence is demanded), the library (where silence is demanded for contemplative study) and of the museum (where objects are respected). The result is that the inter-spatial links that are created in the mind of (say) the student set up a series of complex references that help to manufacture the educational ideology of the university.

In invoking the idea of inter-spatiality in the field of spatial architectonics, then, we have something that is akin to intertextuality in the academic discourse of contemporary literature. When it comes to literature the idea is that in reading a particular text we are influenced by other texts that surround and inform it. Texts are not discrete and isolatable. Texts are interwoven in thought and so each one in some way helps to provide a context in which other texts can be read and experienced. Similarly, when it comes to our spatial understanding of the world we "read" a particular space we are influenced in our thinking about it by other spaces that relate to it. Spaces are always read and experienced against other spaces.

Then there is the issue of naming. Naming the space in which the student is to be taught as a "lecture room" is often enough to raise the status of the lecture that takes place in it. However, what we often want is a way of challenging this magical perception. The point is well-made by Keith Russell in recent paper : "Poetics and Practice: Studio Theoria":

"The Bauhaus , mythological in its importance, sounds much less auspicious when renamed "the making house". The same is true when we exchange the semi-magic term "studio" for its companion term "study"." (Russell, 2000: 1)

For Russell, we define our ways of working (and thinking) by the way in which spaces and constructed via our practices of naming. And as part of the construction of our thought lies in our linguistic practices, we

cannot have thoughts about spaces without also using language to describe them. When we enter a space and name it using the sanctified phrase "lecture theatre" this is bound to set up a series of dispositional expectations for the student that encourage him or her to think in terms of the false divide between theory and practice, work and play, thinking and doing, participation and passivity, education and entertainment. As Dovey says:

"Language is not a transparent medium through which we view the world, rather language constructs the subjectivity of those who use it. This involves a focus on the modes of representation or webs of discourse through which the world is encountered." (Dovey 1999: 29)

The world cannot be prised away from our manner of conceiving it through language. This means that one way that we can start to change the educational expectations of students is to focus on the need to cheat language from within so as to dislocate its power and thereby challenge its operations and closures on thinking that serve to act through the mythology that is silently embodied in the spaces of the university. Indeed, by way of this initial linguistic challenge the related constraints on proxemic signs, behavioural settings and ready-made cognitive maps that students are normally permitted (or think they are permitted) can be altered. (Dovey 1999) So when it comes to space of the lecture theatre, it is a matter of first finding a new name that will stand proxy for that space or of giving it a title that will in some way make it less auspicious, and then, having done that, of looking to the kind of educational practices that take place in it and interrogating the way in which those function. So how can we make the spatial challenge more complete? How can we evolve new practices in education that move beyond the initial step of challenging spatial expectations though our naming practices?

One practical idea is to reformat information delivery in what we might call the "designated learning and teaching space" (what was formerly declared and named as the lecture theatre or room) by using ATGs [Audio Tour Guides] PDAs [Personal Digital Assistants] or mobile phones to question student experiences. The thought here is that whilst the student may be taught literally within the spatial field of the university (and, more particularly, in a room that still has strong ideological deposits contained within it), the hope is that certain technological delivery systems might be employed to remove the student's mental expectations from this genericised site by bringing it up against the world of virtual space. For example, the formal lecture might be transformed by certain hand-held technologies into something more like a critical tour whereby images, objects and texts chosen by the lecturer are placed on tables so that the student can then be guided around them as they might be were they to be guided around an actual museum by a curator. So instead of the rather rarefied and dry experience that the typical lecture or museum tour may standardly provide we might achieve a much more learner-oriented outcome. Various things might happen. Students might be encouraged to be more active in terms of their reactions to displays by using their hand-held technologies as research tools and notebooks. They could be asked to pick objects up, and then having recorded and commented on what they see, feed back to others about what they think and feel. They might be asked to reflect on the over-framed temporal time-slot that one has with the timetabled lecture and so, having collected visual and verbal information on their own hand-held system, relive the educational experience they have just had.

The sort of technologies currently being developed by Fioli may be relevant to such a project. Their most recent version of what they have called "Sotto Voce" which is a hand-held digital museum guide incorporates a feature called "eavesdropping". This supports shared learning activity by allowing companions to hear each other's audio content when undertaking a guided tour. The advantage of the audio mechanism that has been used is that it results in a more cohesive experience than one might normally find with standard ATGs [Audio Tour Guides]. This is because learners can hear each others guidebook activity, which is not the case with isolation engendered by standard head-phone sets. A tour using these new handsets, then, becomes both a social and an educational opportunity. And by building stronger links between learning companions this guide will allow the student to enjoy a much more decentralised educational experience.

Further enhancements to these experiences might be made. Students could bring in their own objects and images to be deposited in a temporary collection to be place in a "designated learning and teaching space" (lecture theatre). Reactions of other students might then be shared and recorded. Searches on the Net might

be made to find out what certain objects and images actually are (rather than being provided with highly structured forms of comment as they are in standard museum contexts). And all of these things could, in turn, be documented in such a way that assessment of their learning could become part of the process. It is thus that the lecture theatre could be temporarily transformed into what is in effect an ad hoc museum, but without the standard habits and habitat that that instituition usually brings with it.

Challenging the Space of the Museum

A similar educational inversion could also happen in the space of the museum. The suggestion in this case would be that the lecture that is normally conducted in the lecture theatre takes place in the museum but via a digital hand-set. This as it stands is not a novel suggestion, but there are ways of making it one by a change in content via new technologies. To see how this inversion might work in practice, we have first to pause in order to understand something about how certain museum spaces already operate.

The space of the museum is, as is well-known, is highly structured. The structures of the museum are organised so that the spatial system is able to confirm an aesthetic ideology of material value, authorship, craftsmanship, provenance, authenticity, originality and exclusive ownership. This tradition of display embodies what Bourdieu has described as the "aristocracy of culture." (Bourdieu, 1979: 11) This is a culture of display in which bourgeois taste and preference become barometers of value. According to Bourdieu, the aesthetic is a symbolic system in which distinctions of taste give us a basis for social judgement (and, we might add, social action). The museum is implicated in this process because whilst it might seem on the surface to present its displays as in some way natural, untainted, and outside ideology – and, we might add, without the multiple pressures of interpretation that always attend images and objects as they are used in the everyday - the real aim is the transmission of cultural capital. For Bourdieu, cultural capital is about the inculcation of bourgeois taste through the knowledge that one gains through the education system. By providing children with access to, and an understanding of, such things as museums, reading, the arts, and foreign travel, parents of middle and upper class families will ensure that their offspring are able to secure access to the best employment in society. The accumulation of cultural capital, then, is for Bourdieu the contemporary hegemonic method through which certain specified individuals and collectives can maintain their economic interests and social rank.

So how can we alter this normalised invocation of political capital (ideology), economic capital (wealth and power), social capital (connections, networks and relations), cultural capital (knowledge), linguistic capital (written and spoken structures) and even moral capital (ethics) be challenged by the introduction of hand-held technologies? And what are the key problems that a lecture conducted through a hand-held technology in the museum might address?

One of the ways that these technologies can provide this is by restoring in virtual terms what the museum removes in real terms. In other words, a hand-held technology can be used to literally re-present the images and objects of the museum with their original contexts of production and use.

Take the one problem that is identified by Benjamin:

"The phenomenon of collecting loses its meaning as it loses its personal owner. Even though public collections may be less objectionable socially and more useful academically than private collections, the objects get their due only in the latter." (Benjamin 1931: 67)

If Benjamin is right then we cannot literally restore the context of ownership via the introduction of a hand-held technology, but we can restore it virtually. Thus a student can be given an image of the original owner and can be introduced the socio-cultural context in which that owner was operating with the object.

A related problem is taken up by Donato:

"The set of objects the Museum displays is sustained only by the fiction that they somehow constitute a coherent representational universe. The fiction is that a repeated metonymic displacement of fragment for totality, object to label, series of objects to series of labels, can still provide a representation which is

somehow adequate to a non-linguistic universe. Such a fiction is a result of an critical unbelief in the notion that ordering and classifying, that is to say, the spatial juxtaposition of fragments, can produce a representational understanding of the world." (Donato 1979: 214)

The question of how objects in public collections are understood is part of a deeper problem. At this stage it may be useful to give a little more detail about how the learner might be asked to consider and comment on this problem via three questions that appear on the screens of their hand-held device. These questions, that build on the issue raised by Donato and Benjamin, are as follows:

1) What is the special social and cultural status granted to the institution of the museum itself?

2) How do managers of taste (e.g. directors, curators, trustees, administrators, attendants, donors, and sponsors) operate to influence visitors in and through the museum?

3) What are the key presentational codes of staging that the mangers of taste are able to institutionalise in and through the museum?

Here are some background thoughts about each question that the student might be asked along with further questions that students would need to respond to by making visual and verbal recordings on their hand-sets.

Question 1) What is the special social and cultural status granted to the institution of the museum itself?

Thoughts about question 1) that put on the hand-sets for students to consider:

Museums as institutions are characterised in the first instance by the fact that they remove images and objects from typical arenas of production, consumption, ownership, use and exchange. By making the museum into a sanctified zone for display, images and objects are thereby abstracted from the concreteness of the social and historical practices in which they normally participate. This has the effect of encouraging the sort of distance of that gives the images and objects on display an aura that fits well with the sort of bourgeois ethic and aesthetic. What, more specifically, does this distancing amount to though?

One way that this idea of a bourgeois distance is exhibited can be gleaned from some recent empirical studies into attitudes to museums and their displays. For example, it has been found that many people who don't actually visit museums in Britain are dissuaded from doing so because they associate the institution most closely with a library or with a monument for the dead. For these people, the museum is most like a place of learning and contemplation. The latter conception is particularly revealing. For the contemplative realm is that which enables the autonomous self to make judgements that are rational (i.e. noble and philosophical) rather than merely instinctual (i.e. like the sort of response that one might expect from a mere animal). The upshot of this, of course, is that the status gained by the museum by appearing to be library-like simply reinforces the thought amongst certain social segments of society that this is a sacred and exclusive institution to which entry is restricted to certain classes.

We can see this is so in practice, for example, by looking at the figures for attendance (particularly where art museums are concerned). For instance, one finds that, somewhat unsurprisingly, that certain "lower-status groups" are often excluded. This is particularly evident in cases where those groups are made to feel that they do not have the education to appreciate the esoteric qualities of the works that are on display. Yet even in cases where attendance is higher it appears that it is still true to say that between a third and a fifth of the population in Britain can be classed more generally as non-visitors in the sense that they have either never visited a museum or will never visit one again after having been once. Either way, the status of institution itself is perhaps one factor in explaining this. This is because the institution is not only important in its attempt to standardise the bourgeois ethical norms, but also vital in helping to build a self conception that goes to reinvigorate a sense of shared bourgeois capacities and responses whilst at the same time presenting these capacities as if they can be abstracted from their socio-cultural context.

Tasks for students related to Question 1) to be recorded on a hand-held digital device:

a) Does the museum really evoke feelings of status (record your answers in images and words)?

b) Is the museum a class based institution (record the type of people you see in the museum and how they react to different kinds of exhibit)?

Question 2) How do managers of taste (e.g. directors, curators, trustees, administrators, attendants, donors, and sponsors) operate to influence visitors in and through the museum?

Thoughts about question 2) that are put on the hand-sets for students to consider:

The bureaucratic culture that was endemic in the nineteenth century museum gave rise to structured categories that continue to influence and build notions of the self and the individual. Part of this was evidenced in an exclusive and scholastic atmosphere in the museum that is at once pedantic, intellectual, discursive, and (only superficially) questioning. For instance, the idea of bourgeois exclusivity in particular continues to be reinforced by certain regimes of display once one enters the museum itself. For instance, managers of taste (e.g. directors, curators, trustees, administrators, donors, and sponsors) tend to emphasise the different forms of capital (political, economic, social, cultural, linguistic and moral) by helping to ensure that there is a rationalised distance between ourselves and certain images and objects there in the museum to be experienced. What is intriguing here is that this has been built on the powerful nineteenth century didactic aim of morally educating the lower orders via Museums, Libraries and Public lectures. The detached self of the kind that the Victorians in particular sought to advance was not for them a given, but a kind of rational and moral achievement to be gained through education. Thus one practical answer that suggested itself was to allow those who had the privilege of having accessed this self already (i.e. the nineteenth century elite) to arrange, organise and manage an abundance of heterotopic historical clutter in the museum in the hope that it would have a civilising effect, specifically where it came to the masses. (Carey 1992)

Tasks related to Question 2) to be recorded on a hand-held digital device:

a) Do you see any evidence of the role played by the following people and companies in the museum: directors, curators, trustees, administrators, donors, and sponsors (record your answers in images and words)?

b) Is the museum trying to fulfil and educational function (record evidence of this as go round)? Who is it for? (record the evidence in words and images)

Question 3) What are the key presentational codes of staging that the mangers of taste are able to institutionalise in and through the museum?

Thoughts about question 3) that are put on the hand-sets for the students to consider:

3) Distancing in the museum can be achieved through the presentational codes of staging. This may be a way of reinforcing upper/middle class distance or detachment. For example, by putting objects in glass cabinets, by raising sculptures on plinths, by putting pictures in ornate frames, by lighting objects in a reverential fashion, by providing academic and quasi-academic forms of written information on invitation cards and labels, and in catalogues, leaflets, handouts, and pamphlets, or by simply placing rope around an area of display in order to cordon it off, the pieces on show are set apart from the spectator. It is through these forms of staging that the self is immediately draw to the idea that what matters is to take up a spectatorial position that will allow one to appreciate material value, provenance, context of (often-exclusive) production, or the possibilities for (usually rarefied) consumption (all essential to enforcing a upper/middle class value system). And this in turn presumably serves to reflect and remind the museum goer of the fragility of bourgeois moral values in the sea of ethical uncertainty created by the

undifferentiated masses. Moreover, for those who are new to museum culture it helps to give the displays dignity and a sense of reverential piety towards what is experienced.

Tasks related to Question 3) to be recorded on a hand-held digital device:

a) Record visual examples of plinths, ornate frames, lighting, academic forms of written information, catalogues, leaflets, handouts, and pamphlets, ropes around areas of display, and works set apart from the spectator. Do these thing affect how you view the images and objects? How?

b) Are there alternatives to these forms of display? What are they?

New Spaces of Educational Reception

Another way of challenging the context of educational delivery is to use new spaces so as to transmute "communication into an original journey." (De Certeau, 1984: xxi) In this instance hand-held technologies (e.g. ATGs [Audio Tour Guides] PDAs [Personal Digital Assistants] and mobile phones) would be used in spatial contexts that stand apart from the standardised fields of educational encounter. In this instance, the idea is to examine how these technologies might be employed to provide an educational experience in a public arena. This might take in sites such as the shopping centre. The reason for using this spaces is that the very cultures of consumerism that we often need to analyse (whether in anthropology, sociology, politics or design) exist in this type of context.

The issues that, for example, the shopping centre poses for the student of material culture abound. They include such things as (in no particular order): shopping as a leisure pursuit, advertising, brand literacy, logos, labels, product narratives and product semantics, display, packaging and promotion, style and design, patterns of consumption, issues of customer credit, social consciousness, possession rituals, cultural capital, sub-cultural capital, scarcity, commodity aesthetics, lifestyle, and classificatory systems. Indeed, if the student of material culture is to fully understand how these concepts are embodied then is it not a good suggestion that these things be understood in their original context?

The intriguing possibility that arises with hand-held technologies is that the student can become a reflective and contemporary flaneur. But whereas the flaneur of the modern period only had his (and it usually was his) own wit and wisdom to draw on in his detached observations and critique of everyday life, the contemporary flaneur (in student guise) might achieve an enhanced critical understanding by having access to a technology that will provide an instance critique of that which is being observed. So if the student were sent out to consider certain brands (e.g. Nike, Gap, McDonalds) during a stroll through a shopping centre information could be recorded in terms of text and image on a hand-held device that might provide details of the company behind the brand and the other brands that company owned and how the company wanted to present itself. But at the same time such a device could also give you details of the alternative views of that brand as evidenced by ethical shareholders, culture jammers, anti-globalization protestors, human rights activists and internet corporate watchdogs. The learning process would thus be enhanced for the student by a much more embodied engagement with the material being criticised; one that did something to go beyond the standard educational diet of cultural theories, isms and methodologies.

Here are a series background thoughts about questions that the student could be requested to think about along with further questions that students would need to address by making visual and verbal recordings on their hand-sets about the semiotic environment of the shopping centre.

Thoughts that put on the hand-sets for students to consider:

Barthes, in 'The Rhetoric of the Image' (1977), and in The Elements of Semiology (1967), argued that the meaning of an image is always related to, and dependent on, the text with which it interacts. Images, he thought, we too polysemous (i.e. images are too open to a variety of possible interpretations for them to communicate a stable meaning). So, he argued that we could best secure the meaning of an image by using words with it. Words, in a sense, help to rescue us from the possibility of multiple interpretations. Words provide anchors for images.

Barthes maintained that there were two basic relationships between image and text. With the first, the verbal text extends the meaning of the image or the image extends the meaning of the verbal text (e.g. in cartoon strips). With the second, the verbal text elaborates the image or the image elaborates the verbal text (e.g. photographs where a caption identifies, or helps us to understand, what is shown). In the first case, new and different meanings are created in order to complete the message. In the second case, the same meanings are restated in a different, but perhaps more definite and precise way. Barthes claimed that elaboration was actually more common. He also thought that there were two basic kinds of elaboration. They were as follows:

a) In the first case the text comes first and the image forms an illustration of its meaning (e.g. certain novels with the odd picture)

b) In the second case the image comes first and the text forms a way of anchoring its meaning (e.g. certain adverts)

Barthes argues that prior to 1600 illustration was dominant. Before this period the text was sovereign. The Word of (say) the Bible was the ultimate source of authority for its disciples. Images that were in evidence merely accompanied words and so helped us to elaborate them. In the age of science, however, Barthes argues that naturalistic images take over and words are used to help us to understand and give meaning to images.

Was Barthes right about these claims? Is there always this intimate relationship between image and text? Contemporary semioticians such as Kress and Van Leeuwen maintain that image and text are largely autonomous; each can have its own independently organised and structured message. (Kress and van Leeuwen 1996:17) In a multimodal text - a text which uses images and writing - the image can carry one message whilst the text can carry another. So, for example, whilst the images used in a book may be sexist the writing may not be sexist, or whilst the images in a book may not be sexist the writing may be sexist. (Kress and van Leeuwen 1996:18)

To understand the multi-modal interactions that can take place between images and texts one might consider it in the context of the shopping centre. With that in mind, here are a number of tasks that students might be asked to record on a hand-held digital devices.

Tasks to be undertaken on a hand-held digital device:

a) Make visual/verbal notes on the form of the images in three different adverts [e.g. the various structures (composition and framing), devices (perspective) and elements (colour, tone, texture and line) that organise the image].
b) Make visual/verbal notes on the content of the images in three different adverts [i.e. what the image is of: a cat, a car, a chair, a house, a person, a country].
c) Make visual/verbal notes on the form of the texts in three different adverts [e.g. the shape and colour of the letters and the layout of the words].
d) Make visual/verbal notes on the content of the texts in three different adverts [i.e. the meaning of the words and their reference (if they have one)].

At this point the student might go on to make further notes on their digital devices in response to the following questions:

1) What role does the creator/designer play in producing these meaning(s)?
2) What role does the spectator play in consuming these meaning(s)?
3) How do these spectators read and understand these meanings?
1) Is it possible that form and content are equally important when it comes to reading image and text?

An analysis of all four of elements the elements listed above: formal devices (composition, perspective and framing) formal elements (colour, texture, line, and tone), aspects of content (what the image is of) and

how the text can interact with it, will, it is to be hoped, provide a more comprehensive learning experience given that the actual spatial contexts in which the adverts sit and are actual and not simply transferred to the normalised arena of the lecture theatre.

Conclusion

The proposal that has been made above is speculative yet practical. The normalised spaces of educational reception have for a long time stood unquestioned. One way to question them is to involve technology to challenge and change expectations. In a world where space is highly branded and thematised in terms of its ambience (Julier 2000: 164) we need to take education out into new and unexpected territories if it is to stay alive. This may be one way of starting that process.

References

Benjamin, W., (1999) The Arcades Project, Harvard University Press: U.S.A

Benjamin. W., (1931) 'Unpacking my Library' in Illuminations, trans. Harry Zohn (1969) (New York: Schoken Books)

Bourdieu, P., (1967) Distinction: A Critique of Social Judgement (tr. Richard Nice) [1984] Cambridge, Mass: Harvard

de Certeau, M., (1984) The Practice of Everyday Life, University of California Press: California

Dias, P., Freedman, A., Medway, P. and Pare, A., (1999) Worlds Apart: Acting and Writing in Academic Workplace Contexts, Lawrence Erlbaum, Hilldale: New Jersey

Donato, E., (1979) "The Museum's Furnace: Notes Toward a Contextual Reading of Bouvard and Pecuchet", in Textual Strategies: Perspectives in Post-Structuralist Criticism, (ed.) Hararu, J. V., (Ithica: Cornell University Press)

Dovey, K., Framing Places; Mediating Power in Built Form, Routledge: London

Heller, S., (ed.), (2001) The Education of an E-Designer, Allworth Press: New York

Julier. G., (2000) The Culture of Design, Sage Publications

Lefebvre, H., The Production of Space (trans. D. N. Nicholson-Smith) (1974) Blackwell: Oxford

Lury, C., (1996) Consumer Culture, Polity Press: Oxford

Perec, G., (1997) Species of Spaces and other Pieces, Penguin: London

Rogoff, Irit., (2000) Terra Infirma, Routledge

Rorty, A., (1992) 'Powers and Power' in T. Wartenberg (ed.) Rethinking Power, Albany, NY: SUNY Press