National Museums Online Learning Project

Stage one report

Summary

This report presents the findings from stage one of the research conducted by the University of Edinburgh team. The research it describes aims to do two things: first, to situate the work of the project to date and set it within a conceptual framework which enables us to better understand it; second, to provide – based on the research outcomes – some suggested ways forward for the project, focusing on the user experience of the creative journeys and webquests.

Over the period April to August 2007 we conducted interviews with representatives from each of the consortium partner institutions, and with early-stage creative journey testers. These were accompanied by reviews of the academic literature and policy documentation in key areas relating to the project: museum education, digitisation, webquests in schools education, the definition and emergence of social media, and e-learning within the context of lifelong learning.

On the basis of this data, the report sets out a framework for understanding in four sections, each of which draws extensively on interview data: the first two are conceptual and relate to the entire project; the second two apply these concepts to the two discrete strands of the project – the creative journeys and the webquests.

1: Objects, subjects and digital natives: the tension between the virtual and the real
We begin by setting the project within the context of the shift of focus in museum policy from the collection to the user-learner. We suggest that this movement from object to subject – this 'de-centring' of the cultural institution – is further complicated by a fundamental change in the *nature* of the object, as a result of digitisation programmes which transform material, 'possessable' artefacts into volatile amalgams of bits and bytes. The ability of users to take, manipulate, re-distribute and re-describe digital objects is, we suggest, a primary source of their educational value. It is also, however, a source of difficulty for institutions as they come to terms with the changing patterns of ownership, participation and knowledge production we are experiencing as we move further into the digital age.

2: 'Who are you to say?': authority, prestige and moderation
We move on further to explore the theme of institutional prestige and authority in the face of the 'web 2.0' paradigm shift, using our interview data to expand on themes relating to the role of the expert in the age of social media, and how this is being challenged by the 'bottom up' ethos of contemporary online social networking. We conclude that the primary tensions driving and informing the project – to do with access vs control, flexibility vs authority, user voice vs institutional prestige – are creative ones which make the project both current and critical.

3: What is a creative journey anyway? The role of social media
Our third section applies some of these insights to the creative journeys, making a case for placing the *social* aspect of these at the centre of the project. We explore the meanings and definitions ascribed to creative journeys by consortium members and creative journey authors, and emphasise the value of social models of learning. The section ends with an overview of some concrete strategies for enhancing the social dimension of the creative journey framework.

4: To fit or to change? Ideals, constraints and compromises in webquest design
Finally, we consider the webquests, setting these within the context of the tension in schools education between a desire for technology-focused innovation and a culture of performativity. We show how partners in general share a social-constructivist philosophy of education, and a desire to extend this into the webquest design. However, we also indicate ways in which this vision is being compromised by a transmissive tendency in some of the webquests so far developed. We end by suggesting some ways in which a sustainable, relevant yet more social-constructivist and critical approach might be taken in the development of the webquests.

Key recommendations
Four key recommendations emerge from the research conducted. The first two of these are to do with project culture and expectation:

1. That partners continue to acknowledge and work with the messiness and complexity created by the 'clash' between the virtual and the real, the digital and the analogue, the expert and the user.

2. That the best way forward for the project is an increased orientation toward the open and social in the creative journeys, and the critical and constructivist in the webquests.

The second two are more applied and pragmatic:

3. That social, community-centred creative journeys are a both practically and educationally sound option for the project, and that in terms of motivation, learning and sustainability social media should continue to be seen as having a key role to play.

4. Partners should explore ways in which more risky and critical learning opportunities might be built in to future webquest design and development.

Contents

Introduction

A complex landscape

The National Museums Online Learning Project is working within a complex and conflicted field of influences and imperatives. First, there is a policy agenda which foregrounds the role of the museum as educational, constituting *learner rather than object* as the museum's raison d'etre. Such a re-focussing comprises a shift at the centre of the institution, one which is further accentuated by digitisation. Concern with the stability, 'possessability' and educational value of the *real* object is being re-directed toward issues of accessibility, authenticity and value in relation to the *virtual*. With its focus on the distributed learner and the virtualised object the institution is re-centred or rather, like Borges' library, its centre is reconceived as being everywhere, its circumference nowhere.

While agendas for lifelong learning mesh well with programmes of digitisation and associated internet-based education such as this one, there are additional conflicts relating to internet-based patterns of participation which are not easily negotiated. The web, and particularly 'web 2.0', gives learners unprecedented ways of *re-claiming, re-contextualising and re-forming knowledge* into personally meaningful, and very public, configurations. Yet a more top-down, transmissive, institutionally-focussed tradition has a long and established history in the museum. The questions raised by the collision of these paradigms – *what is now the role of the museum educator? what is the value and place of expertise, curatorship and cultural stewardship in the age of the internet?* – fuel another creative tension with which the project must grapple.

The context of schools e-learning is another conflicted field. Here we have seen a very heavy investment in ICT infrastructure – around £640 million in 2005-6 alone (DfES, 2005) – and a strong policy focus on the *'transformative' power of technology* (DfES, 2007, BECTA, 2007) accompanied by limited uptake among teachers and a general failure to engage with the *radically different pedagogies* which effective technological engagement requires. This, accompanied by the highly constrained nature of teaching within a culture of *performativity*, where time and space for *innovation* is deeply compromised, creates yet another arena of difficulty with which the project must engage.

The aims of the report

Within such a challenging context, the very existence of the project is a significant achievement, and the considerable progress which has been made to date is due both to the quality of its original vision, and to the commitment, insight and graft of the project team and partners. The purpose of this report is twofold: first, we wish to situate and theorise the work of the project to date, within the terms already hinted at above; second, we aim to provide, on the basis of this, some suggested ways forward for the project as it moves into its next, crucial stages. We will be considering both the creative journeys and the webquests in doing so.

We see a series of creative tensions as driving the project, each relating to those contextual factors already identified. These are the areas in which the work of the project is at the same time most difficult, and most pressing and relevant. Many of the themes we identify will be familiar to the project partners. However, we hope in this report to help 'make them new' in a constructive way which both charts the

impressive progress made to date, and helps map project development for the coming months.

The nature of the research

In line with the project plan, our overall focus over this first stage of the research has been on extracting data relevant to our exploration of the user experience of the project's learning opportunities – webquests and creative journeys. For this first report, this has involved a significant amount of context-setting work, in which we have reviewed a large literature and conducted interviews with individuals from across each of the partner institutions. This has been accompanied by in-depth, one-to-one interviews with the early creative journey testers. Our aim has been to explore partner understandings of the project's objectives and philosophy, and to accompany this with insights from early-stage users and the literature.

The conceptual frameworks generated, and the interview data gathered, create an empirical and theoretical basis for the next stage of the research, in which further work with early creative journey authors will be accompanied by interviews and focus groups with teachers and students engaged with the webquests.

We interviewed a total of 16 individuals over this stage of the research, generating around 400 pages of transcript. Each transcript was coded (using qualitative data analysis software) according to an emerging interpretive framework which was challenged and confirmed by iterative returns to the data, to the literature and to discussion among the research team. Interview data was transcribed in a way which allows for the 'messy' elements of speech – pauses, stutterings, discourse markers (sort of, kinda, y'know), non-lexicals (um, em, mmm hmm) and repetitions. Our intention in doing this is to acknowledge that 'transcription is not merely a technical procedure but an interpretive practice' (Mishler, 1991 p259) and to work, in a modest way, against a tendency in qualitative research to reduce spoken interview data – with its messiness, ambiguity and rhythm – to the conventions of the written form.

The only alterations that were made to the transcript extracts used in this report were those required for anonymisation. Where information clearly revealing the identity or institution of the interviewee was in place, we have substituted ellipses or text in square brackets. At times, speaker identity may be inferred, but we have reduced instances of this to only two or three.

The structure of what follows

The report has four main sections. Sections 1 and 2 are dedicated to the drawing out of two over-arching themes which we see as being central to both webquests and creative journeys. Section 1 considers the nature of the digital artefact and its relation to the working and learning practices of the so-called 'net generation'. Section 2 deals with the theme of power and prestige, considering the ways in which the project is working at the threshold of our emerging understanding of the online museum user, and the ways in which the boundaries between 'them' and 'us' are being challenged and re-drawn in the digital domain.

From these two sections, which provide a conceptual framework for our research, the report will move on to look in more detail at each of the project strands – the creative journeys and the webquests. For each strand, interview data and a reading

of the literature will be pulled together into an analysis which culminates in suggested future directions for the project.

Objects, subjects and digital natives: the tension between the real and virtual

Interviewer: Um, and quite broadly, what do you see as the
role of education within a museums context anyway. I mean,
do you have like an educational philosophy or?
Interviewee: Me personally?
Interviewer: Yeah.
Interviewee: It's the raison d'etre of the museum.
Project partner

I believe in the [pause] um, you know the creative possibilities
that come from ambiguity and mess [laughter].
Creative journey tester

Introduction

The shift in recent decades toward a renewal of the museum's role as educational – what the DCMS (2006) calls 'the resurgence of their role in learning' (p 9) – is fundamental to the context of this project. The debate over the desirability of foregrounding learning over collections has been described as 'sterile' (ibid p 2), yet the shift of focus away from object toward subject – away from the collection toward the user-learner – is a profound one, and of critical relevance to this project.

The foregrounding of subject over object enacted in the museum policy context has echoes in current constructivist educational orthodoxy, in which construction is privileged over transmission – the learning processes of the individual (the subject) are considered to be a more appropriate focus for learning design than the body of knowledge (the object).

In the media context of the project, this turning of the gaze away from the object is further complicated by the fact that the nature of the object itself has radically shifted. The learner-user is often no longer working with a stable and (theoretically) 'graspable' artefact. Rather he or she is being asked to undertake knowledge work with a digital representation of that artefact which, in the volatile and often anarchic nature of the network, has a built-in tendency to become 'free' of the institution which originally guaranteed its authenticity and status.

As Hayles (1999) puts it, 'Access vies with possession as a structuring element' in the digital age (p 43), yet across the literature and in the perceptions of our interviewees, there is a tendency to foreground the importance of presence, of possession – the real object enclosed in the real museum space – and to see the digital primarily in terms of its 'enhancement' value, its ability to prompt or enrich the 'real', physical museum learning experience. Such a perspective creates a tension in the broader media context of the project, in that patterns of knowledge production and learning which seem to be prompted by digital, networked modes – the working patterns of the so-called 'digital native' which depend on instant access and global connectivity – are at odds with this privileging of the material object over the virtual representation. Instantaneousness of access and flexibility of usage of the object are essential in this mode; authenticity of the original artefact and the

conventional institutional apparatuses which guarantee its value become of only secondary concern to the user.

This negotiation of the relative status of the real and the virtual is reflected across multiple cultural domains as we move further into the digital age. It is significant in terms of its impact on understandings of the primary role and function of the museum, and of the project. This section of the report will illustrate how this tension between the virtual and the real, and associated understandings of how knowledge work takes place online, emerges in the literature and in the perception of those interviewed over this stage of the research.

The educational mission and the shift from object to subject
Barr, writing in 2005, suggests that, 'It is important not to forget that although the position of the subject (the visitor) within museums has changed in recent years … the status of the object has changed much more slowly. Museums are still primarily places of conservation' (p 103). Quoting Hetherington (2000), she suggests that, 'Museums remain spaces of the object first and of the subject second' (p 451). Yet the increased focus on the educational mission of the museum poses a significant challenge to this view, a challenge Anderson (2000) has described as prompting a 'paradigm shift' within our understanding of the institution. This shift can be summarised as:

> a switch from the object-focussed institution to one that is user-focussed. In the object-focussed museum, knowledge and expertise is perceived to be 'in here', and the audience 'out there'. In a user-focussed museum, the expertise of professional staff (such as curators) is only a small part of – and dependent upon – the wider expertise of the whole community; the audience therefore must be 'in here' as well as 'out there' if the institution is to develop successfully. (no page)

In the new paradigm, the 'object becomes secondary to the message' (Futurelab 2004, p 6) – the phenomenal presence and status of the collected artefact remains important, but less so than the ability of the individual museum user-learner to access and make meaning from it. Such a view informs Anderson's influential report into museum education – *A Common Wealth: museums in the learning age* (1999) – and has become foundational in government policy relating to museums over recent years. The 'essential' characteristic of museums is that they 'are organisations dedicated to learning, discovery and understanding', with a 'core mission' in 'public education and formal and informal learning' (DCMS, 2006, p8).

The different materiality of the digital
As suggested above, when collections are taken online the shift of focus away from the object becomes differently nuanced, as the learner-user no longer looks to or needs the proximal presence of the object in order to learn from it. In the early days of online communication Feenberg (1989) was able to draw attention to the way in which personal co-presence gives a sense of authenticity to an exchange, an authenticity which is problematised by the highly mediated nature of online discussion:

In our culture the face-to-face encounter is the ideal
paradigm of the meeting of minds. Communication seems
most complete and successful where the person is physically
present 'in' the message. This physical presence is supposed
to be the guarantor of authenticity. (p 22)

We can perhaps see the authenticity of the digitised object as undergoing a similar
crisis as its physical proximity is replaced by a highly mediated representation, a
Platonic 'imitation' abstracted to a high degree. The National Museums Online
Learning Project is concerned with nurturing learning from objects, yet digital
objects are qualitatively, materially different from their 'real' counterparts. Where
the real object is stable in time and space, the digital object is both mobile and
volatile. As Poster (2001) has put it, 'Space offers no resistance to bytes on the
Internet', and the digital object can 'circle the globe in nanoseconds' (p 92). At the
same time, the digital object is unstable materially in a way that the 'real' is not –
the user-learner can re-format, re-align, re-colour, crop, erase and alter an artefact
composed of bytes in seconds. The real object – encased and enclosed by the
museum, rendered authentic and privileged by the associated apparatuses of
scholarship and institutional authority – is in contrast with the anarchic and
manipulable digital object which has, again quoting Poster, the 'stability of liquid'
(p 92) .

The user-learner has, in this context, a level of control over the digital object which
is far in excess of their ability to alter – or even touch – its 'real' counterpart. An
element of power shifts to the user of the digital object, and away from the
institutional gatekeeper responsible for the conservation of the original. The new
learner-focus of the museum gains an additional intensity as the (digital) object
enters the hands of the user, who now not only consumes culture, but also
produces it.

The knowledge work of the 'digital native'
The tendency of the digital to disrupt the distinction between producer and
consumer has existed since the early days of the internet, though it has gained
additional momentum and immediacy since the emergence of the 'Web 2.0'
paradigm. The change in the quality of the artefact described above is accompanied
by an escalating shift in the way in which learning is conducted, and knowledge
produced, in the age of digital and social media. This shift has been – perhaps too
readily – ascribed to generational differences among learners, in which the so-called
'net generation' of 'digital natives' have an ease and confidence with digital media
which can not be shared by the older generation of 'digital immigrants' (Prensky
2004, Oblinger, 2003). The communication characteristics of the 'net generation' of
learners is described here by Lorenzo et al:

Net Generation learners are comfortable and confident in
online environments, seemingly never in need of an
instruction manual. Whether through chat, Facebook, or
Flickr, they are in touch with friends and acquaintances,
evidently trusting the information—and individuals—they
encounter online. Friends of friends and those who have
similar interests find each other through social networking,

whether or not they have met in person. Relationships exist online, facilitated by the exchange of profiles, text messages, photos, music, and the like. Constantly connected to information and each other, students don't just consume information. They create—and re-create—it. With a do-it-yourself, open source approach to material, students often take existing material, add their own touches, and republish it. Bypassing traditional authority channels, self-publishing— in print, image, video, or audio—is common. Access and exchange of information is nearly instantaneous. (p 2)

While these approaches to communication, learning and exchange are not, in fact, wholly determined by the age and generation of the learner, it is the case that instantaneousness of access, customisability and shareability of material, social connection via an always-on, highly-mediated 'web' of contacts, and the ability to forge complex connections between domains of knowledge across multiple, volatile media do characterise the new patterns of knowledge work which take place in the digital environment. The National Museums Online Learning Project – with its user-focus and concern with the rich meaning-making potential of the digital object – is poised perfectly to mesh with these altering patterns.

Tension between the nature of the digital and the value of the real

At this stage of the project, however, it appears that there is a tension between an understanding and engagement with the radical potential of these digital ways of working with digital objects, and a desire to back away from its implications for the authority and role of the museums as institutional guarantors of the authenticity and stability of cultural artefacts. The radical implications of the digital are often reigned in by the privileging of physical presence.

This pattern emerges in the literature as well as in our interviews. In Anderson's (1999) report on museums in the learning age, for example, the dramatically different materiality of the digital, and the implications of this for the control and power of institutions, is acknowledged:

A key change in technology is the shift from physical 'atoms' to electronic 'bits'. Associated with this change are a host of others. Control of media production and with it, control of the learning process, is moving from the traditional producers to consumers, from transmitters to receivers, from teachers to learners. … Yet the development of these technologies will, without doubt, also reduce control of knowledge by public institutions. Documented images will be 'hot' resources, as students seek authentic learning material in an accessible, flexible form. Once data has left the museum and become available digitally, it may be beyond copyright protection, especially in the huge deregulated zone of informal digital learning. (p 21)

Yet these new patterns of participation and control for learners are de-privileged at the same time that they are acknowledged. The report goes on to state that, 'Museums and galleries offer a unique kind of learning, based on first-hand

experience of authentic objects, works of art and other resources in a public, social environment' (p 31) and that, more explicitly, 'so far as possible, museum education programmes should be provided in galleries or sites, among original works of art, specimens or artefacts' (p 55). There may not be the reactionary fear of digital, 'surrogate' objects expressed by some commentators – 'why should anyone bother to visit a museum to see the actual artefact when virtual copies are so easy to come by?' ask Leinhardt and Crowley (2002), with irony – but there is still an underlying assumption that the online learning experience is less rich than that which engages with proximate, present objects. Digital objects are perceived as enhancing a conventional, gallery-based learning experience, rather than being instrumental in a radical re-definition of how learning occurs in the age of digital social media. 'Technology will not undermine but stimulate the public's desire to have a gallery experience; the "virtuality" offered by new media may balance and complement, rather than erode, the "actuality" that is to be found in real human relationships and contact with authentic objects in museums', suggests Anderson (1999, p 26). Or, as Knell (2003) expresses it:

> No matter how one animates the digital object or captures it in high resolution, the object received through a monitor seems remote. Its materiality, its being, its existence as proof, as evidence – its true value – remains illusive. The emotive experience of seeing the real requires the real and no surrogate will do. A virtual visitor may understand the thing better and be better prepared to interpret it when they see it but they receive those peculiar attributes of real things only through real world engagement. (p 140)

The digital as an 'enhancement' technology: interview perspectives
This perception of the digital object, and the online learning experience, as being valuable primarily for its potential to enhance conventional ways of working and learning, rather than radically re-think them, came through strongly in our interviews with consortium group members.

For one interviewee, the webquests and creative journeys were perceived as functioning to replicate something of the experience of being in the brick-and-mortar museum:

> And also the key thing for us some of our activities are working with the images and you know coming up with questions to engage the learners about, with those objects and images from the collection, um to give them some sort of sense of [pause] what it might be like if they were actually in, in the museum environment themselves.
> *Project partner*

For another the value of the webquests lies, again, in their potential for encouraging visits to the real museum. In this instance the global accessibility of the digital resource is subordinated to a vision of the webquest as being regionally-focussed:

> I think they're going to, I think the main [pause] function for primary schools, which is where most of our constituents are, the main function, um, will be looking at um, uh, the scope of

the collections and the availability of the collections and I imagine it will be the London [pause] schools that, um, [pause] use it in the beginning. I hope it will then go, um, further afield, regionally. Um, so that'll be the, the purpose will be enhancing our own, uh, potential to visit, a physical site visit.
Project partner

For another, again, the function of the online resource was to extend access, but in large part in the interests of prompting a physical visit:

Interviewee: Ah, now. Webquests for us are a way of reaching a much bigger audience because we are quite a small team, we can only reach so many people through face to face teaching and they have to be within a certain geographical area to get here and because we're a paid-for service again, you know, there are social, economic barriers as well so in that sense webquests can actually um reach more users um if the DCMS count them as one of our performance indicators. Um, so for us, very useful um educationally yes, again we are reaching more users we want to reach and hopefully we reach them through, those within the area that can visit, we reach them, peak their interest they come for a visit which again supports it so you've got a visit.
Interviewer: So one of your goals is to draw visitors to the physical museum?
Interviewee: Physical museum, yeah get physical footfalls, yeah.
Project partner

These perceptions of the value of the digital resource are both understandable and reasonable. They do, however, all construct the digital learning resource as being a means to an end (enhanced or increased physical visits), rather than an end in itself. The resource is not, generally, described as having a value related to its capacity to enhance new ways of learning and working which are appropriate to the digital age. The starting point might be the digital object, but the end point is the physical museum and the learning event which takes place in the presence of its 'real' counterpart.

New forms of knowledge construction: interview perspectives

In general, interviews among the consortium members suggested that there was wide awareness of the more radical implications of the new, digital ways of learning, but that they presented significant challenges to the museums in terms of making the cultural shift toward embracing them:

Like I say, this kind of concept of how [pause] if you, if you've got a generation of pupils now who are also the generation as newly qualified teachers and stuff who have all grown up around that technology, I mean, we can sit here and we do sit here with, with national museum projects talking about how we can utilise [pause] behaviour and the technology but unless you're kind of, um, immersed in it, in the same way as they are, you're always going to be a step behind.
Project partner

The [media] department, for example, is used to technology changing on a monthly basis. The fact that something that we

see today will not be there in a month is something that's extraordinarily normal. So therefore accepting the fact that people's communication strategies are changing [pause] is something that's not surprising and something that we should expect to have to deal with. So from the [media] perspective I think there's absolutely no discomfort. In fact I would imagine that the concept of developing a social network online would be embraced. We are extraordinarily curious as to how the creative journeys are going to work [pause] and whether or not there's an audience for it. [pause] But whether or not people are increasing their internet communication and increasing their own ownership of content on line, there is no question. We're aware of that evidence and [pause] believe that it will come to museums eventually. Maybe not now but certainly in the future. The [education] department is less web savvy and tends to experience change more slowly so therefore there is more reluctance to embrace or even try to understand something along the lines of, uh, social networking online or the creative journeys concept.
Project partner

While the enhancement theme, and concern about the cultural 'fit' of digital modes characterised consortium member interviews, the creative journey testers varied interestingly in their perspective on the changing pattern of knowledge work, and the value of the digital resource. In the following case, the new modes were seen, again, as being inevitable but of a value subordinate to that of the traditional museum visit:

Interviewee: It's funny since, I mean, since the, you know, the last seven years, seven, six, seven years, since the internet explosion and sort of easier it becomes to sort of get stuff cause, there's a slight tendency if you ask students to do something you'll get a load of photocopies [laughs], printed out stuff, 'oh yeah I found this on the internet last night' and it's like, 'ohhh, ok' [laughs]. It's kind of not, you know, [pause pause] if you, if you go to an organisation then you're always going to discover something by walking round it and you know, not all institutions have stuff on the web. You know, it's lim…, you know, there is a limitation to what the V&A, the Tate, the National Gallery can put on to it.
…
So I always try and encourage them to sort of get out there.
Interviewer: Yeah into the physical museum.
Interviewee: Physical world yeah. I mean it's, it's an important part of research really. Like you may accidentally fall upon something, come across something that inspires you. You may not get that via the internet.
…
And with, with my group of students currently, it's kind of, you get, you get a range. The old kind of, kind of the older people in, in the group are much more the physical world and going out hunting and gathering and collecting the stuff but for the younger ones it's like, "oh yeah I printed this off the internet last night" [laughs]. But you know. It's the way it's going.
Project partner

Counter to this interviewee's perception, the serendipitous aspect of the digital way of working might be viewed as one of its most notable features – the ability to

stumble upon resources, to forge connections between randomly-encountered artefacts, to find ways of making creative sense of the rich turmoil of the digital collection. This 'stumbling upon' potential was commented on by both consortium members and creative journey authors:

> Interviewer: What, what do you think a creative journey is?
> Interviewee: Stumbling, I suppose. Stumbling and you know, picking up things on the beach and not necessarily thinking what you can do with them until maybe later and you get them home and so forth. But the way I use the internet is very much like having those things kind of, I don't know, valuing the the intricacy, the paths that you use to get places or the multiple opportunities that you have to go different places and the random connections.
> *Creative journey tester*

> Um, then I think the other thing is about the cross sort of, is the fact that you can search the collections and that, that's got to be a deeply imbedded into it, this sort of idea of seeking inspiration and having a kind of cross-collection search that could throw out some quite unexpected things which would be nice.
> *Project partner*

> I suppose I think the strength is more in, um, seeing other people's creative journeys. Actually being able to stumble upon, um, videos of, you know, how I designed my cocktail dress or, you know, how I knitted my bathing suit or how I, um, sorted out the um, the set at the amateur dramatic society.
> *Project partner*

What emerges across these interview extracts are a series of tensions clustered around the notion of how learning and knowledge construction takes place online and via the digital object. On the one hand there is the perception that that the physical museum visit – the anchoring of the learning experience by the materiality of museum and object – remains at the centre of the project. On the other there is the acknowledgement of a movement, in the broader social context, toward a 'digital' way of working in which connection, serendipity, access and networking are of more salience than the status and accessibility of the 'real' object. There is also a tension relating to the 'reach' of the project , a sense on the one hand that it is about taking a regional approach in which the goal is to increase and enhance visits, and on the other that in the age of the internet regional boundaries fall away:

> And you see this is, this is the thing that's interesting about museums, because I think museums are being too narrow in their interpretation about how people learn online because we all operate globally, anybody who's online operates globally so what is happening to my mind with the online stuff is that people are [pause] tapping into each other's knowledge when they blog so when you're thinking about online learning the mistake I think the project is making is one, it's, it's coming across to me as if it's paternalistic.
> …
> I'm saying at the moment for me it's coming across [pause] not the project so much but the concepts, the way the museums learn is, is they're still slightly stuck in show and tell. "Yeah, well we'll just have to teach it you know, it used to be and here

I have a such and such and would you like to see it and it's a da de da de da." In other words the museum, the teacher, has to show you it for you to be able to access it and for museums, the teacher puts the parameters around what it shows.

…

Museums are very, very much better now at presenting their artefacts in a way which helps them make more sense to people. Going online is a whole new ball game, it doesn't work the same as somebody coming in to a museum, it works differently because [pause] the power disposition changes.

Creative journey tester

Conclusion

This first section of the report has charted what we believe to be one of the key dichotomies driving and informing the project – the tension between the 'fluidity' of the digital object and the stability of its material counterpart, and the impact of this on the educational aims of the project. It has argued that the different materiality of the digital object meshes with the changing patterns of knowledge construction and dissemination we are seeing online, but that at the same time it problematises the traditional authority of the institution, which is invested in material presence and proximity to material objects. One implication of this tension is a tendency to view online learning with digital objects not as a worthy end in itself, but rather as an enhancement to a traditional idea of what constitutes 'real', i.e. physical museum-based, learning.

Such a view perhaps limits the genuinely innovative potential of a project which is positioned so intriguingly at the nexus of multiple shifts in the technological and policy context. These are shifts in which changing patterns of knowledge production and learning are pushing the regional focus toward a global reach; stable, authoritative objects are re-crafted into their volatile, manipulable digital equivalents; access replaces possession as a structuring principle for cultural institutions; and the learner-user replaces the museum educator at the centre of museum education. The National Museums Online Learning Project is uniquely situated at the forefront of these changes, and is uniquely challenged by them.

Fundamental to this changing context is the question of authority and institutional prestige – as the creative journey tester above pointed out, 'going online is a whole new ball game…it works differently because the power disposition changes'. It is this challenge to existing understandings of power and authority which we will turn to next, in outlining the second key theme which, on the basis of research conducted so far, we see as informing the project.

16

'Who are you to say?': authority, prestige and moderation

> If the walls of the museums were to vanish, and with them their labels, what would happen to the works of art that the walls contain, the labels describe? Would these objects of aesthetic contemplation be liberated to a freedom they have lost, or would they become so much meaningless lumber? (Siegel, J. (2000) quoted in D. Preziosi and C. Farago (2004), p 4)

Introduction

As the previous section suggested, within the media context of the project the institution's need to preserve and protect itself as cultural gatekeeper pulls in one direction, while the radical possibilities of digital ways of working, digital objects, and the foregrounding of the learner pull in another. This project sits at the crossroads, attempting to maintain and extend its partner museums' role as authoritative and relevant in a changing cultural landscape by venturing into new technological territory, but finding that territory to be a shifting and unstable space in which traditional ways of managing the relations between institution and individual no longer suffice.

Issues of power are manifesting themselves in this project through a number of creative tensions around the concepts of authority, access, moderation, quality, control and reputation. In this section we will explore these tensions, and will contextualise the question raised by one of the project partners – 'Who are you to say?' – which asks the museum to account for its claims to represent authenticity, quality, and interpretive authority in the online, and indeed offline, world.

Authority and access: the role of the institution

The fit between digital social media and long-established institutions, founded on the relative certainties of material co-presence and the existence of stable phenomena, is perhaps inevitably awkward. The challenge to conventional institutional structures represented by the new, volatile, digital ways of working are significant, whether that institution be an archive, a museum or a university. One point at which this awkwardness is manifest is in the notion of trust. The recent Demos report's sixth lesson – 'focus on the user' (Holden, 2007, p 39), emphasises the importance of individuals (users) trusting the institution. The institution, on the other hand, must have stringent moderation systems in place – the user is not to be trusted in return. This one-way flow of trust draws attention to the imbalance of authority which may be inherent in interactions between individuals and institutions, however much these institutions embrace user-generated content models. The focus on authority usually remains central in discussions of these models:

> The notion of authenticity as provided by the museum organises collections of narratives into recognisable and authoritative histories, mediating the relationship between visitors and objects. Social media extend this authenticity by

enabling the museum to maintain a cultural dialogue with its audiences in real time. We suggest that this represents the potential for retaining and extending authority by providing audiences a voice with which to participate in cultural debate. (Russo *et al* 2007, p 3)

Here authority is reconfigured to include enabling participation and voice – voice is 'given' (on the terms of the institution) to interested audiences. Left unquestioned are the assumptions that the museum must always be half of any 'cultural dialogue', and that the authentic is that which is provided or sanctioned by the museum. These assumptions go to the heart of the way many museum professionals understand their role. So, for example, the question of why creative journey authors would choose to record their journeys on the museum site rather than elsewhere on the web occasionally met with uncertainty from project partners:

> I suppose it's like we're sat in our ivory towers and just think 'well of course they want to come to us, it's just that we haven't made it available to them', but actually if they've already got their own kindof group, community group going on …somewhere else, why would they want to up sticks and come to us?
> *Project partner*

> It's a really good question, yeah why should they do that when the infrastructure to do that is already available elsewhere? From the individual's perspective… it really has to offer something else that they cannot get usually on the web and [pause] I'm not sure, I mean we've come up with the way of actually engaging them and pulling them in. It's very easy to talk about creating a virtual communica- communities but it's a very hard thing to do, it's incredibly hard. I don't know the answer there.
> *Project partner*

> Interviewer: So why would, why would someone want to record a creative journey using whatever framework or artefact this project finally comes up with?...
> Interviewee: I have no earthly idea.
> Interviewer: Hmm.
> Interviewee: And it's a serious concern.
> *Project partner*

Some creative journey authors also saw this as a key question:

> I guess the issue is when it gets, when it comes to it, do you want to constrain your students to using just the museums that are part of the project? …I mean, you could bring in images from anywhere but [pause], it's so specific, you know, it's so specifically for this project and about this project that it seems [pause] why wouldn't you just get them to make a blog?
> *Creative journey tester*

> Interviewer: Why would you chose to make, to go to the V&A or wherever website and make a creative journey rather than simply set up your own blog or a new Flickr or you know.
> Interviewee: Well, I guess the reason is that you'd have a pre-selected set of objects that might, it tells one kind of cultural

> story about collecting doesn't it? As opposed to another one
> and it might be interesting just to have the facility to look at
> those things side by side. But it does cut out a lot of things.
> *Creative journey tester*

For others, the answer was already clear. As one creative journey tester stated, 'We're just not doing it in your space, we're doing it in *our* space'. This notion that user-learners are in a position of 'seizing' institutional capital and using it on their own terms, rather than those of the institution, is one that can create anxieties within institutions, anxieties which partners in this project have to contend with directly. One person talked about a senior colleague's response to being shown photographs of their museum objects in Flickr:

> Interviewee: He couldn't get over all the photographs that had
> just been taken in the galleries, on phones, mobile phones and
> uploaded and stuff. But, yeah, it's out there and people are
> doing it.
> Interviewer: Yeah. What did he think of that?
> Interviewee: Well, I think he's still in shock.
> Interviewer: Was he? A bad shock or a good shock?
> Interviewee: Bad.
> *Project partner*

With the rise of social media and user-generated content, voice and ownership is seized rather than 'given' by the institution, as Anderson (2005) predicted:

> The winners of the battle over who owns access to still digital
> images of artworks are destined to have a Pyrrhic victory. End
> users interested in creativity will find their way, legally or not,
> to new kinds of multimedia destinations. (no page)

As we have seen, it is often access rather than possession which informs how things proceed online. Creative journey authors also seem to perceive this tension over control of content:

> The advantage [of using the creative journey framework]
> would be that it's [pause pause] depending on the availability
> of images it's primarily, it's primarily visual. And when you're
> looking for stuff… it's really hard to find images of things or it's
> very hard to find images that you actually can upload and use
> because there're all those intellectual property issues. So I
> suppose it's availability.
> *Creative journey tester*

Or, less circumspectly:

> Don't prat about and be pissy with me about you've got the
> image and I haven't and you can use it and I can't.
> *Creative journey tester*

'This is their stuff': ownership and control

In a number of our interviews, project partners expressed their educational philosophy in terms of access. Museum artefacts are seen as belonging to the public, and the role of museum education and curation is to enable people to understand and enjoy their own cultural heritage.

You usually have to say, well what does 'National' mean. What's a nation? You go on at that and, and in the end some bright speak realises that it's them. All of them together and I just think that's so important. This is their stuff.
Project partner

When the classes come in and uh, as I say we have one rule which is more important than all the other rules in this museum and it's just the one rule and they very often put their hands up and say, 'are we, are we not allowed to talk?' [laughs]. And then have to say 'Well that is the rule that we, we have to, we do have to ask questions and we have to talk as much as possible when you get in here because …that's the only way you're going to find anything out'.
Project partner

When it comes to allowing the public an interpretive role, however, difficulties arise. The hope that users will be inspired by museum artefacts and will want to share their inspiration with others is tempered by concerns about quality and accuracy, and moderation is seen as both a practical challenge (how much work will it be? who will do it?) and an ethical one (who is to say what is appropriate content, what is high quality? how can we invite people to participate and then criticise or censor what they produce?). This theme is taken up in the following sections.

'A load of crap': creative journey authors as 'other'

One thread which emerged from the interviews with project partners was the view that creative journeys in particular, and engagement with social media in general, are something that other people would do. Citing lack of interest or lack of time as reasons why they would not record a creative journey themselves, many partners thought blogging and other forms of writing for the web would be particularly attractive to certain types of people. Their characterisations were not, on the whole, very flattering:

I'm not someone who goes on and, you know, blogs and leaves comments here there and everywhere…because to me there's a kind of narcissism about, about it and the people [pause pause] don't mean to go down that route but, but it's kind of like the internet brings with it all sorts of access to great stuff but it's also, there's also a load of crap on there and um, [pause], are we just adding to that?
Project partner

There's, there's a whole element of web 2.0 that's all about self promotion and I think it's caught up in a whole [pause] sort of where culture is at the moment about the cult of celebrity and it, and this sort of Big Brother thing where you can go from nobody to being completely famous and no sort of talent or effort required. And um, and I think it's all tied up and it's int.., I mean and it's interesting. I don't [pause] really have a handle on it or why it's kind of emerged in the way it has but there definitely is a sort of impetus for people to sort of think, "All I have to do is kind of be out there and be recognised and kind of have as many friends as humanly possible and um, be a star" kind of thing. Which [pause] is a bit baffling really.
Project partner

'Attention-seeking behaviour' of various kinds was described: for example, users wanting ongoing feedback from museum staff or wanting to promote their work on the museum sites. Attempting to moderate and respond to the work of such users was expected to be extremely onerous:

> My big concern with creative journeys is that we'll open it up, we'll say you can contribute to the site, you know, this is your chance to upload stuff and you'll have a huge, a really big response like maybe a bit unmanageable in terms of moderating and that we'll um get a load of crap, that basically if you open it up and say you're free to upload images and blog and things that we might get… loads of people with an interest in art kind of uploading their art works with a kind of, from a kind of promotional point of view, that they just want, that they can then say, "look my work's on [museum's] website".
> *Project partner*

In part this pessimism about creative journey author motives may reflect the difficulty partners had in defining a creative journey. Unlike the webquests, creative journeys were seen by many as amorphous and difficult to pin down – this is an issue which is taken up in a later section.

Several creative journey testers, for their part, described an uneasiness about how they were perceived as adult learners. Museum relationships with adult learners were described as in danger of being 'paternalistic' and 'patronising'. There were concerns about being 'put into boxes' and only given access to certain kinds of content seen as appropriate for lifelong learners:

> What would really get in the way of it being interesting would be limiting it to "what we think you're going to be interested in, you, you little people in adult education". So I think there's a kind of patronising thing about um, not opening it up completely to, to anybody in the way that you know, any kind of scholarly resource should be open to anybody.
> *Creative journey tester*

> It's terribly paternalistic. It's all about "you can see what we're going to let you see and you can't copy it so you can use our image".
> *Creative journey tester*

Another way of thinking about the 'otherness' of creative journey authors might be to consider Illeris' (2006) claim that:

> The aim of museum and gallery education, if anything, becomes one of exposing the presumably disciplined and humble eye of the newcomers to impressive experiences and making them strive towards the connoisseur's eye of the expert as the almost unattainable aim of their perceived need for education.

> Much more than the disciplined eye, the connoisseur's eye is marked by its exclusiveness which is related to 'natural'

faculties such as sensibility and taste. Because the self-discipline of the educated subject is related to the recognition of one's need for teaching, the unmarked other of this discourse becomes the subject who has no natural taste and who therefore appears as unteachable and 'hopeless'. As Bourdieu's studies on distinction have shown, the elitist claim for natural taste combined with internalized self discipline is so powerful that large groups of the population declare of their own accord that they have no taste and consequently do not frequent museums or galleries (Bourdieu 1979). The unmarked other of the connoisseur's eye becomes the unteachable and rude eye of the 'tasteless'. (p 19)

Unlike more traditional museum education, projects like this one, where user-generated content plays a central role, disrupt a process of transformation of lifelong learners from newcomers to connoisseurs. Creative journeys may be produced by 'unmarked others' who stumble upon the site accidentally or have their own agendas (self-promoting or attention-seeking). Furthermore, it is not only the eye in this case which might be 'tasteless' and untrained, but also the voice – a voice which speaks publicly and without permission. Anxiety about who might pop up in the museum space with an interpretation which owes nothing to the museum, and how to deal with this, bring us to issues of moderation, quality and control which, as we will see, are fraught with tensions of their own.

Moderation, quality and control
Moderation is both a practical and an ethical concern for project partners. There were two key ideas to which most of our interviewees subscribed. The first is that if members of the public have been invited to participate in the creative journey process, it is essential that their contributions not be judged or censored on the basis of 'quality':

> Somebody's creative journey is their creative journey, it's not up to us to say whether, uh, it was a 'good' journey or a 'bad' journey, um, if they have had it, that is a creative journey.
> *Project partner*

The second – which is in some senses a paradoxical counter-view – is that moderation is necessary to ensure that inappropriate creative journey content is screened out:

> I feel quite uneasy about museums saying 'well, this is amateur and we don't want to be associated with it'. Um, but on the other hand I can understand that you wouldn't want to be associated with something that is perhaps, um, not showing the museum in a [pause] the way that we might want to project ourselves.
> *Project partner*

> Interviewee: I don't think we'd do anything that wasn't, uh, pre-moderated.
> Interviewer: Including creative journeys?
> Interviewee: [pause pause] That's not thrashed out yet.
> [pause] um [pause pause] I think, I think at the moment, I

mean it's a very tightly controlled organisation [pause] in terms
of controlling its public image and outputs.
Project partner

However, project partners were, while acknowledging its likely necessity, generally uncomfortable with the notion of screening:

I could look at two different creative journeys and personally
say [pause] that one resonates with me very strongly, that one
not so much but it's an artistic judgement. The museum as a
whole could make a decision and say, that one meets our
goals more than that one does [pause pause] but to judge
good bad [pause] it is really unfair to the artist because that's
effectively what this is. It's a creative experience... [pause] The
only place where contact needs to be controlled is where it
would offend or harm others. In that case we need to control
what's actually put out but even if it looked really stupid and
we think it doesn't support our aims at all, we must leave it
there.
Project partner

There were some suggestions that museum staff should highlight or promote creative journeys that they felt were of high quality or in other ways met the objectives of the museum:

I think that if we are inviting people to share these, then I think,
um, it is my job, running a web site, to make sure that people
coming in to our site see what, I have to say we, um, judge to
be the better ones.
Project partner

Yes, I think [creative journey quality] should be measured,
because I think that there'll be an awful lot of fairly mundane
creative journeys, and I think we want to measure the quality
of creative journeys in order to see, um, in what ways we can,
um, offer and encourage users to do more exciting creative
journeys, either that's through the technology that we offer, or
through the examples that we give.
Project partner

Part of it is seeding it with really high quality content.
Project partner

The question of whether the user community itself could or should be the ones making decisions about quality did not arise in relation to creative journeys in our interviews, although it frequently did in discussions about webquests, where it was felt that teachers were the ones best placed to rank a webquest according to how well it met their needs. Community self-moderation has, however, long been a feature of discussion boards and other online communities, and is the guiding principle of many wikis. Often its success depends on the presence of a small core group of regular users who police the neighbourhood, so to speak. The ongoing uncertainty about whether creative journey recording is likely to provoke the emergence of a community of this kind makes it impossible to be certain that such self-moderation would be feasible – a theme taken up in the section on creative journeys which follows. By insisting upon a moderating role for itself, however, the

museum sustains its image of itself as the necessary arbiter of quality. The notion of 'radical trust' would seem to call this role into question:

> Radical trust is about trusting the community. We know that abuse can happen, but we trust (radically) that the community and participation will work. In the real world, we know that vandalism happens but we still put art and sculpture up in our parks. As an online community we come up with safeguards or mechanisms that help keep open contribution and participation working. (Fichter 2006, unpaged)

However, unlike in a public park, those who speak in a moderated digital space have simultaneously got a much bigger potential audience and significantly less ability to speak freely. In digital space museums can employ digital tools to maintain their place at the centre of things, controlling access and comment. Russo *et al* (2007), as well as acknowledging that the term itself contains within it a confession of lack of trust typically shown by the museum towards the community, go on to suggest that user-generated content and social media need not fully embrace the spirit of radical trust:

> Perhaps the trust required to establish and maintain social media as part of museum communication is rather less radical. For example, the target community for a museum blog may well be measured in the hundreds, rather than tens of thousands. Access and participation can be moderated to a certain degree by compelling participants to use usernames and passwords. Therefore moderation of community participation does not have to be a real-time, or even a full-time occupation. (p 4)

There are other alternatives to radical trust, too, which can be employed by the savvy institution to stay firmly in control while still appearing to be open. As one interviewee put it:

> If you get the task right, you do then have some control over the outcome, without actually having to go in and censor what people are doing and, um, we've learned all sorts of things. Um, first of all you don't go and ask for information about something where you've actually got the world expert already in your museum – why would you do that? You need to ask for things where the user is the expert… I've also learned that, um, if you ask for an artwork, you know, if you ask for a photograph or you ask uh them to make something, there is no right and wrong answer there, you don't have to get screwed up about expertise there.
> *Project partner*

Control over user-generated content through constrained task-setting may be a pragmatic step, and one which is more comfortable for museums than fully embracing what is radically different and challenging about digital social media. There are hints, however, that a more genuinely open and radical trust might be possible and even desirable to some museum educators:

> Interviewee: I really don't know what they're going to do.
> Interviewer: And you are quite comfortable with that?
> Interviewee: That's the exciting thing. I love that, I like that idea. The power is transferred [laughter].
> *Project partner*

Such a view seems to us to fit well with the forward-looking and in many ways radical nature of the National Museums Online Learning Project. However, while individuals may lean towards openness, the institution may not be able to follow. Maintaining reputation and prestige may continue to be too great a concern although, as we will see, even these concepts are liable to take on new sorts of significance in the world of user-generated content and social media.

Reputation and prestige

Briefly, three related and important points need to be made about reputation and prestige. First, partners believe that a key factor influencing people's decision to use partner webquests, or undertake creative journeys, will be the prestige of being associated with the museums:

> We have a kind of certain brand and a certain identity and people see us as, as authorities on, on things so if you're going to look at [area of expertise] the obvious place to come is, is, um is here. And a lot of people recognise that and I think that that brings with it a benefit for us because people see the, the brand in the National Museums and think "Oh, they're worth having a look at".
> *Project partner*

> I think the reason why people might choose to do it on a museum site is because it has a more direct link, um, and it perhaps gives a sort of weight to what they're doing in a, in a [pause] I don't want to say that there's um a sort of kudos associated with being attached to a museum, but that's kind of what I mean.
> *Project partner*

Second, museums must protect their reputations, and this is a concern expressed about allowing user-generated content on to the museum web site:

> Anything on our website we're giving our imprimatur to and saying yes, this is, this is OK.
> *Project partner*

> We have to just be aware of what a, our users expect and want from from the brand.
> *Project partner*

Thus the more radical vision of the project – that which sees it as embracing a genuine ethos of radical trust and openness to user-generated content – would be in the catch-22 position of opening up the museum sites to material which might, conceivably, damage the institutional prestige it relies upon to draw users to the site in the first place.

However – our third point – users, too, are concerned with their reputation, and this is an important aspect of how user-generated content emerges and becomes self-managing:

> Why do people engage in peer production like this? Chris Anderson (2006) says: 'the motives to create are not the same in the head as they are in the tail. …People are driven by monetary motives at the head, but the coin of the realm at the lower end of the tail is reputation' (p 73). (Anderson 2007, p 15)

> A maven is somebody who knows a lot, who knows a little about a lot of things and that's always been there [in me] always, always, always. And they like sharing. I mean I've got, my counter's up at a hundred and fifty four people subscribing to mine, I get five hundred hits a day.
> *Creative journey tester*

Reputation, then, is another site of tension for this project. On the one hand, partners must protect their image and brand from dilution by content of 'inferior' quality if they want to attract users to participate in creative journeys and use the webquests on the site. On the other hand, those users who want to enhance their own reputations by participating in creative journeys or rating webquests – thus ensuring the popular success of the project – will have their own agendas, and these may not mesh with the museum's. When the museum and the individual clash, it is clearly better for the museum if this happens on their turf, where they have the ability to remove content which is potentially damaging to their reputation – something many organisations have found can be nearly impossible in non-institutional web spaces like blogs and wikis. The danger in exerting this censoring power too readily is that institutional spaces become dull, sterile and inauthentic – something far from the original vision or the expressed desires of this project's partners.

Conclusion

> The whole point about this is changing people, isn't it?
> *Project partner*

Who changes, and who is changed? Just as digital objects have a more ambiguous status than their physical counterparts, relationships between digital content producers and consumers are more ambiguous than in the hierarchical confines of the physical museum. It may be impossible ever to fully resolve the dilemmas apparent in new digital ways of working. Flexibility, access, openness, control, authority and prestige are all highly valued within museum education contexts, and projects like the National Museums Online Learning Project deeply problematise the relationships between these qualities.

It is clearly not possible, nor even desirable, simply to 'resolve' the tensions caused by the competing agendas of access vs control, flexibility vs authority, user voice vs institutional prestige. These are in fact *creative* tensions which drive the project and make it both relevant and forward-looking. As the following sections will demonstrate, our own sense is that an increased orientation toward the open and

the social in both creative journeys and webquests is the best way forward for the project. However, this will clearly take place within a context in which the reputation of the partner institutions will need to be safeguarded.

By simply acknowledging and working with the messiness and complexity created by the 'clash' between the virtual and the real, the digital and the analogue, the expert and the user, the partners can make serious contributions toward understanding and managing the evolving landscape of museum learning. As one partner put it:

> I think we have to keep plugging away and um not allow sort of pretty outcomes to dominate over untidy serious outcomes.
> *Project partner*

The rest of the report will consider how the over-arching themes identified in these first two sections extend into more detailed insights into each of the project strands. We first consider the creative journeys, moving on in the final section to the webquests.

What is a creative journey anyway? The role of social media

The critic and scholar Julian Stallabrass has written of the internet as handing 'back to artists a prize and an obligation long since surrendered in liberal societies in favour of artistic license and cottage-industry production values: an explicit social role'.
(Holden 2007, p44)

Learning is our purpose and creativity – informal, social, pleasurable – is our medium.
(Anderson 2000, online)

So the people are more like friends, my friends and internet, internet, you can reach millions of people, you know, so it's like a spider net and is everybody connected.
Creative journey tester

Introduction

Creative journeys – how they should be defined, developed and supported – continue to provoke a lot of discussion and debate among partners. In part this is because the 'web 2.0' principles creative journeys seem to embrace are still so new for museums, and because the issues of power, prestige and moderation discussed in the previous section are so acute in relation to these principles.

In this section we unpick some of the tensions surrounding the definition of a creative journey, offering an approach to thinking about their purpose and the factors which might motivate someone to undertake one. We explore the learning benefits of social spaces, and make some recommendations about how to go forward in developing the creative journey framework to support communities of practice.

What is a creative journey?

What kinds of learning can the creative journey framework, as it is currently conceived, support? Without a clear definition of the creative journey itself, this important question is difficult to answer adequately. The partners' strategy so far has been to leave the definition as open and flexible as possible, in order to allow for multiple interpretations of the task and therefore a richer set of journeys, and perhaps a wider audience. This is also one way of addressing the challenge of partnership working between so many different institutions.

However, this openness was also perceived as a lack of clarity on the part of early creative journey testers:

It wasn't very clear at all what anybody *meant* by creative journey so, I suppose that's a good thing in a way because it leaves it open for you to define it yourself, but [pause pause] but we could have done with more explanation and what was

the point of this and [pause] why, why might it be worth doing,
what could you get from it; it just, it felt very much like, um
[pause] they wanted to do something to make use of these
collections but they didn't know what they wanted to do. Um,
[pause pause] but they sort of dressed it up as something that
had an intention but I don't think it had an intention.
Creative journey tester

Such perceived lack of clarity has left some fundamental differences of opinion
about creative journeys unexplored. One perspective might be to see the museums'
views as irrelevant to the user experience of creative journeys:

It is about trying to improve the experience for the user, and,
all these issues of how the museums view it, uh, are really
important to its success but they're actually not, they're not the
purpose of the project.
Project partner

Yet we would argue that, on the contrary, the museums will shape and define that
experience, and a lack of discussion of some of the philosophical issues around
creative journey purpose will lead to difficulties in recruitment and retention of
participants.

In an attempt to draw out understandings of what a creative journey is, in our
interviews we asked whether a creative journey was something 'expressed' or
something 'constructed'. In other words, are we talking about a record of learning
(or inspiration, or creativity) which has occurred elsewhere and then been
deposited on the project's web site? Or does the activity of interacting with the
project's web site in itself constitute the creative journey? In one case, what
appears on the site is a product, the record of something that happened elsewhere,
in another time and place, perhaps long ago. In the other case, the creative journey
is a process – possibly drawing on earlier impulses and inspirations, but essentially a
negotiation of learning and experience occurring in real time. In the former case,
the creative journey is something which happens 'in here' – its locus is the
subjectivity of the individualised learner. In the latter, it occurs 'out there' in a
complex negotiation of individual, technological and cultural environment, and
social network.

Individual or social?
In interview, some partners were clear that the creative journey is the expression of
an individual process which occurs prior to, and independently of, any interactions
which take place on the creative journey site:

I think the creative journey is the process that I go through in
order to achieve my aim. And, after that I might choose to write
about it.
Project partner

It's just examples, like I say of how people have been, been
inspired in, in unusual or, or kind of quite usual ways by, by
our collections.
Project partner

The constructed creative journeys in this sense are almost incidental – the digital record is important only insofar as it relates authentically to an almost Romantic understanding of what constitutes creativity itself:

> I would be very uncomfortable if they were simply constructing something because we'd asked them to. I mean I do feel it has to come out of real *need*.
> *Project partner*

> A creative journey I think is very much a part of creative process and for me to tell you what I think it would be, would be like Beethoven telling you two days before he actually composed his masterpiece. You can't know it until it happens.
> *Project partner*

In this view, the creative journey is seen as an individual matter – a question of a pre-existing need for creative expression on the part of the individual user-learner. The technological artefact is seen as a record of the journey, not as constituting the journey in itself. For other interviewees, the creative journey was viewed much more as a socially constructed entity which happens because the creative journey framework invites and enables it:

> A creative journey is really um people sharing their inspiration online, um, about a museum object or a museum environment or a visit to a museum and sharing their experience and what they felt and maybe what they did… And out of that one person putting up their creative journey inspired by a museum object um hopefully will then come community, who, they talk to this person who's put up their creative journey, "ooh, I like that because", "I thought this because" and then out of that that then inspires a whole set of people um to discuss or put up their own creative journeys and link it to each other or to the museum object. And that's what I think it's all about.
> *Project partner*

These two visions – of the creative journey as individual expression or as social construction – and the very different philosophies they imply, can surely both be embraced and enabled by the final creative journey framework. Yet it is perhaps in nurturing and designing for the *social* view that the National Museums Online Learning Project faces its most difficult and most pressing task, and it is to exploring this aspect that much of this section is devoted.

In terms of the meaning embedded in the term 'creative journey' itself, however, it is the individual and the goal-oriented view which is suggested – the metaphor of the 'journey' implies an internalised progression oriented toward a fixed destination:

> 'Journey' sounds a little bit like you're buying a ticket and you've got a um, a fixed route to get there even though that's not the case so I'm, I'm wondering whether journey is the right word.
> *Creative journey tester*

> One of the issues I have with creative journey is just with the word journey, really, because, um, for some people it will be, it won't really be a journey it'll be a very sort of direct 'I went, I

looked at this, and I made this'. … I don't think it should be, you know you can't tie it down too much because it comes down to the person, the individual whose, whose journey it is, you know, and their way of working… it may be more of a process of revisiting and reworking and adapting and revising and all the rest of it.
Project partner

While the term 'creative journey' is certainly evocative, should an emphasis on the social become a determining factor in the development of the creative journey framework, a re-wording of this strand of the project would possibly have greater descriptive value.

Product or process?
Closely related to the tension between the expressed and the constructed, the individual and the social, were a series of tensions between understandings of the creative journey as a process and those describing it as a product. Product-orientated metaphors used to describe creative journeys included terms such as 'documentation' and 'trail'. Process-orientated metaphors included 'journey of discovery' and 'event'. Other interviewees described creative journeys in terms of offline objects such as a portfolio, design notebook or sketchbook. These are objects or products which capture a process, and so perhaps make a useful parallel with a creative journey in some respects. In other ways, though, they do not adequately express either the editable or the social nature of online creative journeys. In our view, it is these *process* aspects which are the most innovative and most pressing area of concern for the project.

We do not suggest that understandings of the creative journey which focus on its individual, expressive aspects should not be enabled by the final framework. We do, however, argue that it is the nurturing of the social aspects – the vision of the creative journey as a process, a shared space – which will need most careful consideration in terms of framework design. In the rest of this section, we continue to explore the case for the creative journeys as social, touching both on the learning benefits of the social approach and on concrete strategies for designing in social interaction during framework development.

The 'socialness' of the creative journey
In talking about emerging trends in e-learning, there are several key and related concepts which are often conflated: social media, user-generated content and web 2.0. It is important for our purposes to distinguish in particular between 'user-generated content', which describes a way in which content is produced by web site visitors rather than by web site 'owners', and 'social media', which describes a networked, collaborative and social environment in which content is produced. It is clear that creative journeys are an example of user-generated content. What is still uncertain is the extent to which the creative journey platform will become a social medium for networks of individuals to share and collaborate with one another – to what extent will they privilege the social over the individual model?

While many of the partners we interviewed have extensive professional experience working in e-learning, and are familiar with many of the web 2.0 tools and platforms in current use, there remained quite a lot of uncertainty and debate about the

educational benefits of social media and the possible fit between creative journeys and social networking.

> Q: So you don't necessarily see web 2.0 as being fundamental to the creative journeys?
>
> A: What I don't understand is the interrelation between the two. And what, what's the defining factor. If it's web 2.0 and social networking then that's fine… if it's kind of static examples then that's fine as well …we can set up wikis and we can set up blogs and this that and the other, you know, that, that's, there's no, there's no real kind of challenge in there… there's nothing revolutionary or radical in that.
> *Project partner*

The feeling that wikis and blogs no longer constitute a challenge within museum e-learning is perhaps contestable, but what is key here is the lack of understanding of what learning purpose social tools might serve in the context of this project.

Having previously explored a range of ideas about what exactly a creative journey is, there are a number of issues and questions we want to draw out in this section. Firstly, to what extent do creative journey testers and museum partners view the creative journeys as fundamentally social? Second, what are the potential learning benefits of an explicitly social space for creative journeys? And, finally, how might the project move forward in terms of the social aspects of creative journeys?

Motivation: what do people want from the creative journey?
At this stage of the project, there is still a lack of certainty about who will actually use a creative journey, and why. The creative journey prototypes are in their early stages and, as we have already seen, larger questions about what a creative journey *is* have led to a lack of specificity about who, in turn, might want to record one. Among partners, there was ready acknowledgement that this issue of motivation was a troubling one, with implications for participant recruitment:

> I feel there, there are lots of people, well, and I'm slightly included in this but there are people out there who, [pause] who don't quite see the [pause] point, I mean what is the point, what is the purpose of, and what's in it for people. And uh I think you need to do, you *do* need in some ways sort of think that through for the creative journeys. I mean if, if *we're* all there thinking "well I wouldn't use it" then how're we going to encourage other people to use it? And one of the things I'm finding hard to do, is sort of, sort of in terms of finding participants, is to articulate to them what's in it for them and to sort of say, "Hey you get involved in this wonderful project and [pause], um, um, we're going to provide you with uhhhm", [laughs], you know.
> *Project partner*

A lack of specificity about who would do a creative journey provoked one of the main tensions in early discussions about recruiting testers, and was partly responsible for the decision to provide an instance of the creative journey platform prototype for each museum, rather than a central project instance: it was felt that it would be easier for individual museums to cultivate a user base with specific links to

that museum. The opportunity to learn more about those who choose to get involved at this early stage will be beneficial for later integration and development of a project-wide platform for creative journeys.

In our interviews with the initial creative journey testers and with partners, some themes around motivation started to emerge. Many features of the creative journey prototypes strongly suggest a social networking element – the fact that they are made public on a web site, the ability to comment on other creative journeys, the tagging and browsing facilities – and the importance of this social aspect was emphasised by several consortium members:

> They want to share it with other people. I mean I think the whole, the whole idea is sharing. ...I think people *do* like [pause], you know, people like putting their photos on Flickr and doing you know, YouTube and MySpace and all that stuff, people quite like telling other people about themselves and other people are quite interested to find out! …I think you just, just learn so much from other people.
> *Project partner*

> I think people like to do it, but um to do it just for yourself is, you know, in a way why put something on the, on the web if you're doing it just for yourself? Um, the whole reason why you might, um, put it out there for people to see is to invite comment and feedback.
> *Project partner*

> The way I pitched it to sort of volunteers is um, you know, you, it's a way for you to sort of [pause], um, sort of blog a bit about what you're doing and upload images but, about your kind of creative process and um, using, kind of museum collections as inspiration and actually [pause] I was quite surprised by how many people have sort of said, "Oh, right, that sounds great", and then their natural thing is, "And will we then kind of [pause], meet other people online who are doing the same as us?", and I kindof think ah well, that, *that* may be where the benefits and the kind of incentive and everything are.
> *Project partner*

For creative journey testers there was indeed an expectation of a high degree of dialogue:

> Blogging proper is a conversation. Well no, it's a sharing and then it's a conversation… the creative journey as conceived in the museum context doesn't seem to have got to grips with the fact that we're people and we have dialogue.
> *Creative journey tester*

> A: that's really exciting... to do that and sort of and share that with, with more people where if it's sitting in a box at home then, it's not shared with anyone really [laughs].
> Q: Not even you usually, probably.
> A: Yeah, no, exactly. Then you forget it's there.
> *Creative journey tester*

However, some were both attracted to and uncertain about the nature of the connections they might make through their creative journeys:

A: I'm kind of a shy person who doesn't talk to people much anyway so maybe you just manifest your own personality in that. But any time you write something it isn't purely for yourself, you've always going to imagine a reader somehow, somewhere or I think if it were say images, say I was putting up images of my [work]... I would want people to see them and respond to them, you know. You know and I've been thinking of doing that, of doing a website that's just about, just about these things, um, but it's, part of me thinks, who else is going to be interested in that? But on the other hand I know that there's a little community of people out there who are and who do and I have been quite shy about sort of entering in to that so, I don't know. What was the question?

Q: Just how important was [the social aspect] to you because like you said a couple of times it's not important to you yet you're giving a lot of examples saying well "wouldn't it be great if someone happened up on my work and commented" or "I was part of this network "or you know, I'm just quite curious that you seem to

A: Let's say I have mixed feelings about it.
Creative journey tester

Although I did choose to make the work that I had done public, again I did that because I wanted to have the experience of doing that, em, and I find that quite [pause], I feel quite vulnerable about having [pause] done that.
Creative journey tester

What may be needed is a sense of *community* (perhaps more specifically in this case, *communities of practice*, which we will return to shortly): a group of people who know one another and take an interest in one another's work and contributions. While not necessarily a 'safe' space, a community denotes a place of belonging where there are established norms of behaviour. However, it is a well-established principle that community must be nurtured and developed from within (see for example Clark 1998; Cothrell and Williams 1999; White 2004), not be mandated from the top down by institutions, so partners are quite rightly wary of expecting a community to fall into place:

a lot of things which, which are successful in, in the kind of social community, social networking, web2.0 world, they're things which are just, you can't plan for... You know, they, they spring up spontaneously ...I don't think you can, you can really [pause], when you *try* and set something up with specific purposes, like "Well this discussion group will be this"... then it, then it won't because of that em, [pause], what's the word, kind of democr.., democratic approach to it really... It's what the people want which is what will happen.
Project partner

However, if community will be an important motivator for creative journey participation, there are steps that can be taken structurally to facilitate its formation. We will look at some of these shortly. Next, though, we will turn to the notion of 'communities of practice' and the potential learning benefits of the kind of social space that might encourage participation in creative journey recording.

What are the learning benefits of a social space?
Partner and creative journey author views about learning and creative journeys centre around learning from and with other people:

> [The benefit is to] share with other people your experience, show them that they can, they can do the same. …You can learn through their experience you can learn something for your experience that, that, the museum is not only for a journey it's also for experiences also for, also for learning.
> *Creative journey tester*

> I think seeing what other people have done and how they find a way of using the collection to answer their particular problem is hugely valuable because I think it suggests things to others.
> *Project partner*

> I think the creative journeys could help people [pause] learn from each other and perhaps be more [pause] explicit about the [pause] process of creating so I think it could be very helpful. Not just there in the [pause] end result.
> *Project partner*

> Hopefully there'll be a community element where people will actually learn from each other. And that it'll be a sort of, um, sharing of knowledge online.
> *Project partner*

There are numerous theories around the social and community aspects of learning, from legitimate peripheral participation and identity formation (Lave and Wenger 1991) to connectivism (Seimens 2004) and critical pedagogy (Friere 1970). Here we will focus on Lave and Wenger's 'communities of practice' as relevant to both adult learning and creative identity.

The (trans)formation and display of identity is, according to Wenger, both the purpose and the proof of learning. He argues that learning equals participation, or 'being active participants in the *practices* of social communities and constructing *identities* in relation to these communities' (1998, p 4, italics original). So, in this model, to learn is to move into greater contact with a community of practice, and is fundamentally a social act. This is not to say that learning is necessarily *sociable*, though differing definitions of community might place more or less emphasis on interaction, and on the forms such interactions must take. There are 'multiple, varied, more- or less-engaged and inclusive ways of being located in the fields of participation defined by a community' (Lave and Wenger 1991, p 35-6).

Along with learning as participation and belonging, Wenger also speaks of 'learning as becoming' (1998, p5). Here, the focus is on the ways in which learners change in order to fit in to communities of practice. It may be useful to consider belonging and becoming as the public and private sides of the coin of learning – different, but inseparable. Becoming is far from being an organised, linear progression along a planned and considered route. It might be chaotic, disturbing and circuitous, and have unexpected effects on the learner. Some educators argue that reflection and self-assessment can 'strengthen… identity-forming processes by making them explicit' (Dysthe and Engelson 2004, p254). The role of reflection in the creative journey has yet to be explored, but we have the sense that it may be crucial in distinguishing between what is knowledge or creativity, and what is a creative

journey, and this is something we would like to investigate further in the next stage of the research.

We also think that creative journeys have the potential to be a site of community in ways which traditional online learning has not been able to be:

> Evolving social clusters can give rise to what the American literary theorist Stanley Fish calls 'interpretive communities', communities that coalesce around a certain reading of a (literary) text in Fish's case, or, where museums are concerned, around a specific theme represented through the museum collections, an opportunity to pursue lifelong learning in a culturally satisfying exchange.
>
> Archives, libraries and museums can harness virtual communities to build new synergies around these shared interests. As collections become accessible online, members of a community – including museum-based curators and educators, alongside the remote visitors may all share and contribute their own knowledge and narratives to the communal knowledge base. Virtual communities can be instrumental in expanding the knowledge woven around the objects that surround us in daily life. (Hazan 2004, p 7-8)

On the basis both of the data and of the literature, therefore, we suggest that the social aspect of the creative journey is its key characteristic, and the element that should be focused upon in its future development. We end this section, therefore, with some suggestions for ways in which the community-building potential of the creative journey framework might be nurtured and developed.

Strategies for creative journey framework development

What follows are what we consider to be the key principles for developing a creative journey framework to promote and support community-building. Some of the suggestions made here are already being implemented in the project, and others are under consideration. Taken together, however, they represent a strategy which puts people and their connections with one another at the heart of the creative journey.

A socially-focused creative journey framework has additional benefits beyond providing potential users with the motivation they may need to embark on a creative journey, and to stay with it. It also makes self-moderation (radical trust) a real possibility for the project, and offers one route toward sustainability for the creative journey platform. These are principles which make creative journeys more usable in the early stages of adoption, and which will become increasingly important as the number of users increases.

Personal space

Users need the ability to create and customise their own 'space' within the creative journey site. Creating a personal profile, uploading an image to represent themselves, and of course posting their own creative journey entries are all central

to this. Another crucial aspect surrounds privacy and ownership. It should be made clear to users that they own the data they create – not only through copyright and privacy statements, but also through the ability to import and export content to and from their creative journeys using RSS (syndication) and by making the standards on which the creative journey platform is built as open and flexible as possible. Users should not feel forced to choose between doing a creative journey and posting images in Flickr, for example, when the technologies are available for them to bring their Flickr photos into their journey. The ability to control access to creative journey posts (so that someone can post privately, publicly, or to specified groups or individuals) also enables individuals to negotiate their own relationships within and outside the community. Finally, keyword tagging of creative journey entries not only supports connections between people, but also lets individuals organise and understand their journey in ways that are meaningful to them.

Community space

Secondly, a community-centred creative journey framework requires public spaces where people can congregate, make introductions, discuss the development of their journeys and the framework, and ask for help (particularly important for inexperienced users). These public spaces could take the form of discussion boards, wikis or group blogs. A group blog function could also spark collaborations between creative journey authors and other creative uses.

Ways of making connections

As well as public spaces, users need ways to find other people who share or complement their interests, and to be able to communicate directly with those they find. A private messaging facility would be useful here in addition to public commenting on creative journey posts. Tagging, and the ability to search both tags and the text of creative journey entries and profiles will allow targeted searching and browsing. A more general browsing page where random journey entries are presented is also key to the serendipitous 'stumbling upon' which creative journey testers and partners have both said is an important aspect of creativity and learning.

Reputation-building

Finally, as we saw in an earlier section, reputation is a key motivating factor influencing participation in online communities. To be seen and recognised as making a valuable contribution to a community is a powerful incentive to participation. Highlighting certain journeys as 'museum picks', interviewing and profiling different authors on the main page of the site, asking users to flag posts they particularly like and showcasing the most popular, and showing recent comments and posts are all ways of allowing users to build their reputations within the creative journey community, thereby increasing its 'stickiness'.

Conclusion

> I just *don't know* whether or not the creative journeys or the webquests are going to create communities or there are communities for them already and whether or not these communities are going to talk amongst themselves.
> *Project partner*

What we have attempted to do in this section is make a case for considering social, community-centred creative journeys as both a practically and pedagogically sound option for this project. In terms of motivation, learning and sustainability, we believe that social media have a key role to play. The project has, in fact, already begun to implement social media within the creative journey framework – the recommendation we make here is intended to indicate that we believe it is taking the right direction in this regard.

All of this is not to say that attracting participants to creative journeys will be easy. Beyond the building of the framework there are a lot of points at which the expertise and leadership of museum educators will be crucial, especially in the early stages of the project, in stimulating interest and supporting participation. Decisions will have to be made about what kinds of users to target. While those with well-established relationships with the partner museums may be willing and valuable volunteers in the initial stages, they are a small proportion of the potential authorship of creative journeys and are not, perhaps, the target audience for this project:

> there are already extant groups and we could get them to do a little pilot for us um, um online, yeah that would be quite easy but they already coming to us so are they really the groups we want to target? It's a catch 22.
> *Project partner*

On the other hand, energetic and enthusiastic advocates who are willing to build up expertise in using the creative journey site can certainly strengthen the community in its early stages. Again, partners may have a role to play here in ensuring that within advanced and perhaps intimidating groups of early adopters are those who are willing to help and welcome newcomers – this may need to be museum staff initially.

Initially also a delicate touch will be needed to avoid the appearance of an artificial community having been engineered. This was one aspect of the feedback from the creative journey tester interviews:

> I could see how, you know, I could have had connections with any one of those people but, I suppose I'm a little, I'm a little [pause pause] suspicious [laughs] no, I'm a lot suspicious. Um, I'm a little wary of things that sort of smack of artificial um links between people where it doesn't really happen. I think if its gonna happen it's gonna happen kind of spontaneously or automatically or you're gonna see something.
> *Creative journey tester*

There is much that is unpredictable – ineffable even – in the nature of the successful social network. No-one could have predicted, for example, that a project to create a local networking site for Harvard students would have become the global phenomenon that is Facebook, or that MySpace would become the key location for the emergence and nurturing of new music, or that Orkut – designed by a Turkish software engineer – would be seized upon as *the* primary location for social networking among Brazilians. However, we believe that designing a space in which people can explore and develop their creative relationships with their cultural and

memory institutions *within the context of an active community* of others doing the same thing, will give this strand of the project the best possible chance of success.

To fit or to change? Ideals, constraints and compromises in the design of the webquests

Introduction

> "We only spend about twenty minutes on volcanoes – let's get
> real and focus on the matter at hand!"
> *Project partner*

If the previous section identified a structural tension in the project between an understanding of the creative journeys as individual or social – a question of product or process – we see another over-arching tension as informing the design and implementation of the webquest component: a conflict between the project aim to create innovative learning resources capable of challenging and improving current practice, and the constrained realities of the current context of learning and teaching in schools.

This section will consider these emerging tensions in light both of the data gathered and of the wider literature, offering some points for consideration in the future development of the webquest framework.

Innovation vs performativity

The National Museums Online Learning Project aims to support the DfES agenda of fostering innovation and creativity in education (NMOLP Project Implementation Plan, p 6), by creating webquests as learning resources that encourage children to develop critical thinking and digital literacy skills. These aims are indeed forward-thinking and it is encouraging to see the use of the internet being promoted in such a critical and engaging way for children. In its vision, the project constructively challenges much of what is currently promoted as e-learning.

The consortium partners interviewed over this stage of the research appeared to perceive the aims of the project as something that may indeed challenge current practice in many schools. They all recognised that schools and teachers were at different stages with regard to the integration of technology in education, not only in terms of infrastructure and resources but also skills, knowledge and perceived value in the use of Information and Communication Technologies (ICT). There was a general perception by partners that teachers have access to a lot of resources (due perhaps to the well-publicised government funding of ICT in last few years) but that one of the barriers to successful and innovative integration of ICT in teaching and learning was teachers' own lack of skills or interest. Teachers' beliefs and attitudes regarding the perceived benefits and purposes of technology are recognised as being a significant influencing factor on the effective use of ICT in education (Condie and Livingston 2007, Becta 2006, 2007).

Teachers' lack of motivation is perhaps due in part to the emergence of conflicting government agendas regarding the purpose of ICT in education. Watson (cited in Fisher, 2007), in 1997 recognised this as a 'dichotomy of purpose' where on the one hand ICT was promoted as being the key to improving teaching and learning, yet on

the other was constructed as a necessity in order for children to gain essential skills as members of a flexible, IT-literate workforce-of-the-future. This economic versus pedagogic tension has led to confusion about the purpose of ICT which Fisher (2007) argues has meant an inconsistent and limited uptake. Arguably this dichotomy is still very much in evidence today with various DfES and other government funded reports (DfES, 2006, Lifelong Learning, 2007, Becta, 2007b, Techernet, 2007) constructing ICT as the key transforming influence on education while also stating its necessity in terms of skills development for a future workforce.

Alongside this tension in the broad policy context, we need also to consider the factors influencing, and perhaps dictating, the conditions under which teachers currently work. At present a managerialist discourse which focuses on issues of performativity, target setting, accountability, efficiency and attainment is, arguably, dominating policy and practice in education (Ball, 2003, Gewirtz, 2002, Hargreaves, 2003). This discourse is so deeply embedded in practice that it may be very difficult for teachers to engage in any activities that conflict with or challenge its associated pedagogy – a pedagogy which relies on the transmissive nature of didactic and behaviourist approaches to teaching and learning. Several consortium partners recognised the constraints resulting from such a performativity-led climate, especially in the secondary sector, relating in particular to the pressures of delivering a tightly prescribed curriculum in order to meet externally imposed targets and examinations.

The pressure on teachers to work within the constraints of this type of curriculum was also evident in the findings reported in the Childwise report, and this was particularly true for the Secondary teachers involved. Teachers expressed concerns about time (in order for them to 'cover the curriculum') and were anxious that resources (webquests in this case) be designed to be completely appropriate for the subject area, as dictated by the curriculum. The teachers in the report wanted resources that were 'time-savers' (in terms of teachers' own planning and creation of resources) and were motivating or would add interest for pupils to otherwise 'dry' topics. In fact the report states that because of the tight structure of the curriculum Secondary teachers are reluctant to try an approach that is based on open-ended discovery – an issue which may have some significant implications for the project. The impact of these constraints on teachers was perhaps surprising to some consortium partners particularly in light of the aims of the project. One in particular was perturbed by the opinions gathered from Secondary teachers in the first round of user-testing:

> Looking at volcanoes, studying Pompeii and Vesuvius and understanding how that was represented in art and what happened to the people who lived there. It was, as far as I was concerned, a brilliant mixture of key stage four citizenship, history, artistry and science but of course, it was seventy per cent science because it's looking at science of volcanoes and key stage four teachers said, "One, this isn't useful to us because we only spend about twenty minutes on volcanoes in a given term. Two, we don't want to talk about art or history during our course. That's for the other teachers to do. And three we have tests to teach to so, I, let's get real and focus on the matter at hand. These kids have got to pass the tests and volcanoes only play a small role there and if we're incorporating art and science and literature then that's going to detract from what we have to deliver". So this data was

[pause] less than encouraging.
Project partner

It is easy to see the frustration and disappointment that partners may feel when confronted with this type of response from teachers. As a result, the structure of the webquests has come under extensive scrutiny, and has provoked a debate which emerged in the interviews we conducted. On the one hand, some partners are convinced that the way forward is to produce webquests which will be easily recognisable and usable for teachers and children within current curriculum constraints, even if that means that the original project vision has to change:

> The fact of the matter is, is, we, we're going to need to target some that, in a way that teachers are going to automatically just recognise, great, that's really useful, I can use that and take it. Because otherwise we'll end up developing a resource that just won't get used.
> *Project partner*

> I think sometimes you have to let go of, I think the project might need to let go of that sort of wider vision in order to deliver something meaningful, packaged. It has to be quite tightly packaged, I think.
> *Project partner*

> Unless we continue to be really thorough in our user testing, I think there's a danger that [pause] these will look fantastic and it will be a wonderful website with all these resources [laughs] but they won't be used by teachers because [pause] they won't have been consulted at every stage of the way and I think we've really got to listen to them because even if we disagree with [pause] what they say, they're the ones at the end of day that are going to be using it. Um likewise the students. So I think we've got to be very um, uh, realistic about that and make sure that it meets their needs a hundred per cent.
> *Project partner*

> I'm coming round to thinking that you know we, we do have to take on board the reality of the situation that these are going to be used in, otherwise they won't be used, and [pause], but then [pause] if you take on board everything that is said from the education sector, it's kind of like, they're re-writing the brief.
> *Project partner*

Others feel that the project should be taking a more challenging approach, one more committed to the vision of forging change:

> I think it is a pity that [pause] considering the fact that we are trying to drive a change in the way in which teaching is done that we are kowtowing to teacher opinion and unable to exert any leverage to force them to change. At the end of the day it's a matter of navigating this particular issue and identifying whether or not we give up on the audience or change the consortium such that we can meet that audience's current expectations. At the moment the option of forcing the audience to change its views, is not on the table. I don't know how to put

it on the table. It would be nice if we could.
Project partner

I think that we should want to change classroom practice. I
think that, um, if we don't have big aims like that, we're not
going to achieve a great deal, I mean we probably won't, we'll
probably fail in some extent, but we should have that as what,
you know, on the horizon and what we are actually aiming at.
… I think we have to be quite ambitious.
Project partner

This tension is, and will continue to be, a significant factor for the museums project
as it tussles between a vision of change and the reality of negotiating the current
performativity culture in schools.

While there is no easy answer to the issue, we suggest that there *are* opportunities
to foster the aim of change and innovation in a manageable and reasonable way in
the future design and development of webquests. This would involve a commitment
to a webquest model that facilitates a shift toward a more social-constructivist and
critical approach to teaching and learning, perhaps alongside more conventional
resources. It would be unfortunate if those webquests which could inspire and
encourage creativity and digital literacy in innovative ways end up being
marginalised or neglected because they are unproven or expected to be unpopular.

In the remainder of this section, therefore, we will further explore the background
to this debate over the purpose and function of the webquests by considering
partners' approaches to conceptualising learning and teaching in schools, discussing
their perceptions of the role of technology in this context, and then extending this
discussion into a series of implications for the design of webquests. The discussion
here will provide a backdrop against which interviews with practicing teachers will
take place in the second stage of the research.

Social and constructivist: a shared understanding of learning
As previously acknowledged, teacher beliefs and attitudes are a key influencing
factor on how technology is integrated into teaching and learning. Similarly, the
beliefs and attitudes of consortium partners are likely to be an important factor
informing the design of webquests. With that in mind, interviewees were asked to
share their beliefs about learning and teaching.

Overall there appeared to be a shared understanding about learning and teaching
among the partners, which could broadly be described as sitting within a social
constructivist framework. They indicated a preference towards learning that
engaged students in dialogue, often through collaborative approaches, and which
constituted the teacher as mediator, assisting and scaffolding the student
throughout the learning process. Such a socially-inflected approach is in contrast
with other forms of constructivism which view the learning process as more
individual and cognitive. Learners were positioned as active participants in the
process with discussion, enquiry, interaction and reflection as central tenets.

Interviewees commented on the importance of finding ways to help children make
connections and build bridges to support their developing understanding by
contextualising the learning experience and engaging in dialogue:

> It's very helpful if you've got somebody who can [pause] talk
> with you not at you, discuss with you and, and, essentially
> build bridges that you need, between you and the, the portrait.
> *Project partner*

> And so… if you ask the students [pause], there probably are, I
> mean, students out there who find maths difficult and maybe
> teaching it through art would appeal to them and they would
> help, and help them learn it but it, you know.
> *Project partner*

Some interviewees believed that to avoid superficiality and encourage deeper levels of thinking and understanding, opportunities needed to be provided to allow learners to investigate, explore, analyse and perhaps develop metacognitive skills by reflecting on their own learning. Examples of how this was done within the museum context were provided:

> I've worked with a number of children over the years…who,
> didn't want to measure their specimens, well wanted to
> measure the specimens but didn't want to write it down.
> Wanted to explore the object but didn't want to write about
> what the exploration was like. They wanted to explore one
> object [pause], say, an ammonite, and then they wanted to
> study a modern shell. Ammonites are ancient shells. Modern
> shells are kind of different but kind of similar. By studying them
> both simultaneously [pause] that also folds into the reflection
> cycle because what they're doing is analysing. Not writing
> down, but by acting in that way, they are still reflecting.
> *Project partner*

> By encouraging people to reflect upon their experience it in
> some ways informs them as to what they did and allows them
> to then [pause] reflect upon it. . . And that is a major part of
> learning.
> *Project partner*

This way of conceptualising the learning process was recognised as challenging the type of learning activities that were based upon traditional didactic approaches. While it is acknowledged that transmissive, behaviourist approaches can be useful in developing certain skills, or acquiring specific content knowledge, it is well recognised that they are insufficient to develop a deeper and more sustained level of understanding (Moore, 2000, Pollard, 2002):

> Um but yes it's pretty intangible but learning is pretty intangible
> and again you know, if you do the tick box stuff "they couldn't
> do their two times table last week and they can do it this
> week", it's not actually telling you if they understand
> mathematics at all.
> *Project partner*

In concurrence with the aims of the project, then, the partners we interviewed appeared to share a vision of learning which focussed on the encouragement and development of higher-order thinking skills and critical thinking, within the context of a social and constructivist understanding of learning. How such a vision is being fed into, or compromised by, the actual webquest design will be considered shortly.

44

The role of technology in the learning process

Despite much of the government rhetoric claiming the transformational potential and ability of technology to significantly change education (DfES, 2006, Green at al, 2005), a more cautious understanding of the role of technology was held by the partners. Technology was often identified as just one 'tool' that could be used to support or enhance teaching and learning. As one interviewee commented:

> I'm not really interested in technology as technology. I'm interested in what it can do for you, you know, it's there as a tool, just like a li, a library's a tool or an index is a tool or, you know, whatever. Um, I'm interested, interested in what's there and what you can do with it.
> *Project partner*

The perception of digital environments and artefacts as instrumental, as 'tools' prized primarily for their enhancement value, was problematised in the section of the report which considered the various tensions between the real and the virtual. It was argued there that we need to see the emergence of digitality as having a radical effect both on the nature of the (digitised) artefact, and on the kinds of interactions which take place around it.

In relation to the webquests and to the nature of teaching and learning with technology in schools, this failure to account for the fundamental *difference* of the digital has also been commented upon in the literature. Loveless (2003), Somekh (2004) and Lankshear and Knobel (2003, 3006), for example, all raise the issue of to what extent the uses of technology in education are significantly different from traditional teaching and learning. Lankshear and Knobel (2006), talking specifically about new literacies and the importance of developing critical skills, describe what is commonly seen in practice as 'old wine in new bottles' syndrome. They identify many examples of technology-mediated activities in the classroom which simply replicate traditional models of teaching and learning, with technology often seen as simply an add-on to conventional learning activities. There is very little evidence of the claims made by government that the technology will 'transform' education. One partner recognised this issue and was concerned that much of what was being currently offered were simply digitised resources which, though valuable, could not be seen to constitute 'e-learning'.

> Where I'm not a fan of it is, is just for its own sake. I mean I think that, there's a lot of things which are described as e-learning which are actually just [pause] um, you know, they're just something which would happen offline, just bunged onto, onto a, onto a website and that's not, that's not the same, not the same thing. That's not to say that they're not valid resources to make available on line…
> *Project partner*

Arguably one reason for this limited understanding and use of technology is that there has not been a well considered theoretical and pedagogical underpinning for the integration of ICT in education (Conlon and Simpson, 2003). In fact Reynolds et al (2003, p 151) have described technology in education as being 'broken backed without a pedagogical spine'. It is not enough therefore, simply to assume that the inclusion of technology into the learning process will increase motivation, or raise

attainment or – as is often promoted – ensure constructivist approaches to learning. Fisher (2006, p 293) raises his concerns about this rhetoric surrounding ICT in education as 'carrying overtones of technological determinism, with agency being ascribed to technology'. This is evident in the continued teacher-centred, mechanistic and technology-driven approach to integrating ICT in schools (Bigum, 2003, Hawkey, 2004).

In thoughtfully and meaningfully introducing online pedagogy, then, we must tread a delicate line between determinisms. On the one hand we must acknowledge that the digital forges – even forces – significant change in the ways in which learning, literacy and communication is understood. On the other, we must accept that as teachers and agents we have a responsibility actively and mindfully to work with these changes in the way in which we design learning opportunities for our students.

Therefore what is perhaps of immediate concern for this project is not simply accepting that the use of technology can potentially create opportunities for significant changes in teaching and learning but to recognise that it will only happen through careful design of the technology, a design that is theoretically and pedagogically well-considered. Further, the resource itself, regardless of how well it is designed, will not facilitate creative and critical thinking in pupils – the way in which teachers adopt and adapt these resources within the classroom will be crucial (Garrison and Anderson, 2003). This point was raised in interview:

> [Technology] doesn't come with any underlying pedagogy or andragogy um, it's how you use that resource, uh, in the same way when video was introduced how you used video depended on your own classroom and teaching philosophy, so it depends on the teacher and what they think.
> *Project partner*

The National Museums Online Learning Project could potentially be contributing to a shift in the way the internet is used in teaching and learning through its creation of carefully constructed activities that develop and promote new, critical literacies and encourage pupils to be critical web users. The key to this, for this project, is to create learning resources – in this case webquests – that position the learner as an active participant, encouraging learning through exploration and problem solving, and focussing on developing critical and analytical skills to help students develop their own meanings, understandings and interpretations. The webquests certainly have the potential to help students develop these higher-order skills. However, the way in which they are designed and conceptualised will be central to their future use and value.

Bigum (2003) has claimed that such online activities are often compromised, becoming simply 'digital busy work' – often what is valued is the fact that technology is simply being used, rather than that it is being used to good pedagogical effect. Partners' perceptions of the purpose of the webquests certainly appear to challenge Bigum's view, in that they perceive them as being a learning tool that can be designed to encourage interactive, and sometimes collaborative, learning that will actively encourage learners to gather and analyse information. This process of enquiry was seen to be fundamental to the design of the webquests:

As a [pause] as um, I think of a research um learning tool that um enables students or learners and teachers to enquire and learn about a particular subject but in, quite, in an active way and not in a passive way and I think that's what's quite interesting about them because with the interactivity of the questions and the [pause] the looking at things and having to find things um and also the bringing together, the creating of resources for them rather than them having to go off on tangents to find things.
Project partner

I think I still have the same vision about what a core kind of webquest is. Um, it's definitely about, um, getting the children to search the collections databases of the partners, um, and from the results of that, sift the results and, um, you know, compare different results and analyse and work out what, what they need and take that forward to produce something in their quest, whether it's a piece of artwork, or a piece of written work, or something.
Project partner

It was, however, acknowledged that while this was the aim for the webquests the design of such rich tasks was indeed very challenging, as one interviewee remarked:

So I can tell you from having struggled with them, actually getting the task right is, is really crucial and then I see it as, um, a way of taking students through a process of investigation, exploration, um, encouraging them to make links, have eureka moments, all of those things, add their own creativity in. This is an ideal webquest then. It would be [laughing] hard to make it work like this. Um, and to come out at the other end with their, their solution to the problem, not that there's a right solution but that where they can talk about what they've done, they can explain why they made the decisions they made.
Project partner

Taking account, therefore, of the espoused aims of the webquests and the beliefs and assumptions held by the partners, we will next look at the emerging designs of the webquests and consider to what extent the aims are becoming a reality.

The vision and the reality: implications for webquest design and development

At present five draft webquests have been created and presented to the project team to discuss. Feedback from the Childwise report has been carefully considered and informed some changes and developments from the original webquest designs. In looking at these drafts it is apparent that the partners, and now the resource writers, have worked very hard to create interesting activities that will both motivate learners and hopefully stimulate creativity. How the collections connect across institutions has been well considered and the links made are strong, providing learners with a range of perspectives about one topic (this is particularly evident in 'Depictions of Women at War'). Overall these have been well matched to the relevant curriculum areas, making explicit the cross-curricular links. Further, detailed teacher's notes offer guidance on possible areas for discussion and extension activities, both offline and online, integrating a range of other

technologies. However there are a few areas that merit further consideration, particularly in light of the aims described earlier. While such aims are commendable, in reality the tasks are often limited in scope. Given that the draft webquests are 'works in progress' it is hoped that the following considerations will be useful in informing future developments.

The Becta Review (2006, p 44) noted that a recent OfSted inspection identified that too often tasks incorporating ICT were overstructured. This could be seen to limit the potential for children actively to create and construct their own meaning and understanding. Interestingly, the Childwise report suggests that children are accustomed to tightly structured activities and therefore the webquests need to be carefully structured. However an overly cautious approach might limit the learning potential of the webquests, and attention should perhaps be given to the introduction of more flexible ways of working that offer a little more 'risk'. Indeed Moore (2000) states that it is the removal of risk evident in tasks underpinned by behaviourist approaches to learning that often lead to learners developing only a superficial understanding. Constructivist and social constructivist approaches tend to value the need for children to take risk in order to learn.

This appears to be an issue emerging within the design of the webquests – indeed, one which is already recognised among the partners:

> I would like to think that at least we could give people the, the tools by which they could get their kids thinking a bit more and questioning things, and questioning what they find on the web and discovering that the web offers lots of different things for lots of [pause]. I suppose this is why I get slightly anxious when I see this being, um, us falling into perhaps over-constructing these things, because we are, if, the further we remove this from the web, um, the more the danger that when kids come out of this process they actually won't be any better at dealing with 'the web'. They may be better at dealing with our web site, but they won't be better at questioning what they find on the web.
> *Project partner*

The creative 'mess', ambiguity and serendipity which is a feature of working and learning in the digital environment – and one which, as we have seen, is valued in the creative journeys – is perhaps in danger of being 'written-out' of the webquests.

The riskiness of the search
This tendency toward the reduction of creative 'messiness' can, for example, be seen from the very structured way in which children are directed to objects from the collections, allowing little or limited opportunity to develop skills in searching. Children need to be supported in learning how to construct effective keyword searches, evaluating and analysing the information gathered to make reasoned judgements about the appropriateness and value of the content found. Even given that the webquests are limiting the searches to within the museums' own collections, room can still be made for children to begin to develop these kinds of skills. Although searching only within the museum sites will ensure that children access high quality and appropriate content and not drift into the abyss of Google, a frightening space that reduces the control teachers have (or where children may be 'distracted' by the internet – a concern reported by the teachers in the Childwise

report), it is perhaps detrimental in some respects in that any risk in searching beyond these sites is eliminated, an issue also raised by the Childwise report. This leads to a somewhat distorted experience of the internet (Lankshear and Knobel, 2006). However, what is perhaps of some concern is the perceptions held by teachers from the user-testing groups (Childwise report) that teaching the skills of web searching is something for the 'ICT class'. They appeared only to value the product of a search and not the actual process involved in searching: choosing keywords, reading critically, sifting, selecting relevant sources – all of which requires some understanding and knowledge of the subject, as well as developing critical thinking skills. With that in mind, it may be worthwhile for the webquests to be designed in such a way that they *do* help to facilitate the developing of search skills within the limits of the museum sites, a skill equally important for Key Stage 1 as it is for Key Stage 4.

Transmissive design

A further issue that becomes evident on closer scrutiny of the webquest tasks is that some quests are designed around a rather transmissive, top-down approach to learning. One in particular – the Sikh webquest – which was aimed at Key Stage 3 relies quite heavily on providing large amounts of information and facts for children with little opportunity for them to consider or explore these any further, other than to find objects relating to the facts given. Similarly, through the Emperor Akbar quest children are asked to search for information and consider it, but are then asked to see how closely their understanding matches with the 'correct' answer given within the webquest. This form of design is very much based upon behaviourist principles and tends to promote a transmissive model of learning and teaching, running the risk of reducing the motivation for children to synthesise the information they gather in order to develop their own understanding and make their own interpretations.

Understanding the purpose of the task

One of the strengths of most of the webquests is the clear information children are given regarding what it is they will actually be doing, although often this is limited to a list of the learning activities to be undertaken. The teachers explained in the Childwise report that children expect to see immediately what the aims and objectives of the activity are. It is a fundamental part of the learning process that children know not only what they will be doing but also understand why they are doing this, and what the purpose of the activity is (Clarke, 2003). If a social constructivist approach is underpinning the design then the quests must not only be set within an 'authentic' context, but must also provide learners with some sense of ownership over the task. It is also essential that the demands of the task are appropriately challenging for the stage they are aimed at and, as Ferdig (2006) notes, these should be set in the upper boundaries of their zone of proximal development. In other words the tasks should be designed to challenge pupils' thinking, building on (and perhaps even challenging) prior knowledge and skills, and requiring appropriate scaffolding and support from peers, teachers and – in this case – the webquest framework itself.

Criticality over cut-and-paste

One of the primary aims of the webquest component of the project was to provide a resource that will help to create critical web users and allow children to develop

creativity and critical thinking skills. For this to happen the quests must be designed in such a way that they are more than simply the gateway to a range of high quality resources that encourage little more than copy and paste. This is especially true if we are to avoid the type of 'print and complete' activities described by Lankshear and Knobel (2003). Some of the activities within the webquests could arguably fall into this category, as children are encouraged to print (or save) particular images and then write about them, something which does very little to challenge traditional teaching methods or encourage deeper level critical thinking. This is not to say that there is no value in these activities, rather that they should only be a small part of the overall problem or challenge that frames the complex activities that make up the webquest.

One other critical issue that has emerged through the draft webquest designs is the type of questioning relied upon. If the aim is to help children develop the kind of thinking skills required to access, collect, sift and analyse resources critically, making informed, reasoned judgements in order to construct their own understanding, then appropriate questions must be devised to encourage these higher-order skills. While it is necessary to use a range of 'what?' and 'how?' questions initially to engage children with the objects and topic, these must then develop into the more demanding questions that ask 'why?'. Children must be encouraged to consider why something may be the way it is, make reasoned judgements and explain their responses based on the evidence they have gathered.

There is an over-reliance throughout the webquests on the more low-level questions that focus predominantly on recall, comprehension and at most some application of some of this 'new knowledge'. There is little evidence of questions included that require higher-order thinking skills, the few that are used tend to be limited to analysis and do not extend further to demand skills of synthesis and evaluation. For example within the weather webquest children are prompted to use some analytical skills in order to answer the question, 'How has the artist made it [the picture] look cold and snowy?'. Two further questions are asked in order to help prompt the children, one is simply a 'fact finding' question while the second demands children begin to draw on their analytical skills - 'Why are the walls of the house the only colourful things in the painting?'. This could be further supported by asking children to justify why they have given a particular answer, and perhaps asking them to give alternatives.

If we look at a second example from the Emperor Akbar webquest we can see some relatively straightforward ways of extending the questioning to include some simple analysis. The first activity for pupils in this quest is to "Look at each of the images on the links below. They show, in order, some of the events of Akbar's rise to power. In each picture try to answer these questions:
a. Can you spot Akbar?
b. What other kinds of people are in the picture?
c. What do you think is happening?"
This could easily be extended to include: d) Why do you think that is happening? e) How do you know? It is only through the use of questions that ask 'why?' that there is any likelihood that webquests will be able to inspire or promote critical thinking (Gaskill et al 2006).

Conclusion

There are clearly, then, a number of challenges facing the project partners with regard to the design of the webquests. The tension between innovation and performativity in schools education described earlier is a societal one with which the project must engage, though it cannot resolve it. However, its impact on the project's understanding of the function and purpose of the webquests is significant in that it is here that the project *does* have some scope for actively forging change in a manageable and practical way.

While a constructivist and learner-centred understanding is shared by the partners, the extent to which this understanding is manifest in webquest design is at present limited. We have outlined above some areas in which this understanding and vision appears to be compromised by the risk-averse, instrumental and transmissive tendencies of the performative approach. The approach currently being tried – to create a range of webquests, some with a more conventional structure and some with a more radical one – would seem on the face of it to be a good compromise. However it is important that the more 'radical' designs are not marginalised and a balance across and within webquests achieved.

We have also sketched here some ways in which more risky and critical learning opportunities – opportunities which are, perhaps, more genuinely *digital* – might be built in to future webquest designs. Such approaches have the potential to nudge online learning toward the meaningfully critical while, at the same time, remaining practicable and useful options for teachers working in the current educational climate. They perhaps offer some modest ways in which the project might both fit, and change, current teaching and learning practice.

Conclusion

> Museums were established with an explicit purpose to educate their public. But implicit in the work of a museum has always been its role in helping us make sense of who we are and exploring our place in the world. Museums embody, celebrate and sometimes challenge our notions of identity. As our society becomes both more dynamic and more plural, this task is becoming more important for all cultural institutions and for museums in particular.
> (DCMS 2006, p 11)

Summary

Online education in museums is changing the way both learners and institutions see themselves, and much of this report has dealt with the implications of these changes. The shifts we have discussed are:

- patterns of knowledge construction and dissemination are changing as 'web 2.0'-based technologies and patterns of participation continue to flourish
- the web asks us to extend a regional focus into a global reach
- online learning with digital objects is not necessarily to be conceived as preparation for learning with real objects in a real world – the digital is increasingly an end in itself
- stable, authoritative objects are being re-crafted into their volatile, manipulable digital equivalents, and this has serious implications in terms of ownership and the role of the expert
- access is, arguably, replacing possession as a structuring principle for cultural institutions
- the learner-user is replacing the expert at the centre of museum education
- relationships between digital content producers and consumers are more ambiguous and unstable than in the confines of the physical museum.

The existence and impact of such shifts are, of course, contestable. However, as a result of our research over this first stage of the project, we see them as informing a series of creative tensions which drive the project and make it of pressing relevance: the fluidity of the digital object vs the stability of its material counterpart; competing agendas of access vs control, flexibility vs authority, user voice vs institutional prestige; the nature of the creative journey as individual or social, process or product; and the conflict between innovation and performativity in schools education, and hence webquest design.

We have made a number of recommendations throughout this report, the key ones being that:

- project partners continue to acknowledge and work with the messiness and complexity created by the 'clash' between the virtual and the real, the digital and the analogue, the expert and the user

- the best way forward for the project is an increased orientation toward the open and social in the creative journeys (within a context in which the reputation of the partner institutions is safeguarded), and the critical and constructivist in the webquests

- social, community-centred creative journeys are both a practically and pedagogically sound option for this project; in terms of motivation, learning and sustainability social media should continue to have a key role to play

- partners should explore ways in which more risky and critical learning opportunities – opportunities which take account of what is specific and *different* about learning online – might be built in to future webquest designs.

What next for the research?

Future research will build on the themes and concerns raised in this report, within our overall remit of researching the user experience of the project outcomes. In particular, we will further explore the tensions between institutions and individuals in relation to the control of digital content in the context of museum education. This will relate largely to the creative journeys. The relationship between text and image in knowledge construction and dissemination is an issue which emerged over this first stage, and which deserves further attention. We will continue to investigate this in relation both to creative journeys and webquests.

Another area we intend to pursue is that of the interplay of reflection and narrative in creative journey construction, and emerging community practices around these. A related question is that of creative journey author identities – in particular questions of inclusion and exclusion, and who does and doesn't feel drawn to and welcome within the creative journey space.

In relation to webquests in particular, we intend to go further in exploring teacher and student understandings of the digital, further investigating the potential of webquests to support innovative learning and teaching in sustainable ways.

Continuity, passion and change

> Digitisation has changed everything.
> (Holden 2007, p 9)

We argue that digitisation, and digital ways of working, have led to profound changes in education across all sectors, including museum education, and that this project is uniquely affected by and positioned in relation to these changes. However, the rich history of the partner institutions constitutes equally the context for this project, and the excitement that project partners feel about the future is intimately connected with the passion they have for their institutions, and the potential for their collections to inspire rich learning experiences. The digital is different, but excitement, passion, and creativity are finding their way into these new spaces via strong links with the past, as well as openness to the future:

> Interviewee: One exhibition I love is the Enlightenment
> Exhibition at the British Museum which is a sample of the

objects that were in their original collection, what in 1753. And that was the year that Soane was born. And so he, as a child, if he knew, if he had had the opportunity to visit a museum or the museum... he would have gone to the British Museum and that's what he would have seen. And the parallels there are enormous. You walk in there and you see, the first thing you see is this, these walls of Greek [pause] vases just as you do here and then you go on to see a whole lot of interesting equipment, barometers, um and sculptures and objects, natural productions, shells and fossils and so on, exactly in the same way that, that he collected here and mixed them in with his collection, made the, the same investigation. Um, so if it was possible for people to, to do that

Interviewer: digitally

Interviewee: without going out of their front door. [laughter] I think that would be, um

Interviewer: That sounds very exciting, when you describe it like that.

Interviewee: Yeah

Interviewer: making connections in those ways.

Interviewee: Yeah, yeah. Yeah!

Interviewer: It sounds wonderful.

Project partner

Bibliography

Anderson, D. (1999). *A Common Wealth: Museums in the Learning Age*. (London: DCMS). Retrieved: 21 September 2007. http://www.culture.gov.uk/Reference_library/Publications/archive_1999/Common_Wealth.htm

Anderson, D. (2000). Networked Museums In The Learning Age. *Cultivate Interactive*(2). Retrieved: 21 September 2007. http://www.cultivate-int.org/issue2/networked/

Anderson, D., Lucas, K. B., & Ginns, I. S. (2003). Theoretical Perspectives on Learning in an Informal Setting. *Journal of Research in Science Teaching, 40*(2).

Anderson, M. L. (2005). Who Will Own Art Museums' Content? *The Art Newspaper*. Retrieved: 21 September 2007. http://www.maxwellanderson.com/WhoWillOwnArtMuseumsContent.htm

Anderson, P. (2007). *What is Web 2.0? Ideas, technologies and implications for education*. (Bristol: JISC). Retrieved: 21 September 2007. http://www.jisc.ac.uk/whatwedo/services/services_techwatch/techwatch/techwatch_ic_reports2005_published.aspx

Ball, S. (2003) The teacher's soul and the terrors of performativity *Journal of Education Policy,*18(2): pp.215-228

Barr, J. (2005). Dumbing down intellectual culture: Frank Furedi, lifelong learning and museums. *museum and society, 3*(2). Retrieved: 21 September 2007. http://www.le.ac.uk/ms/m&s/vol_3,2.html

Becta (2006) *The Becta Review 2006: Evidence on the progress of ICT in education* (Becta) Retrieved: September 2007. http://foi.becta.org.uk/display.cfm?resID=20747&CFID=1266178&CFTOKEN=9b07e96b96abb70d-368E42AF-DB58-F7C5-D9B8AACD23911024

Becta (2007a) *Emerging Technologies for Learning Volume 2* (Becta) Retrieved: September 2007. http://partners.becta.org.uk/index.php?section=rh&&catcode=&rid=13768

Becta (2007b) *How Technology Supports 14-19 reform: an essential guide* (Becta) Retrieved: September 2007. http://publications.becta.org.uk/display.cfm?resID=31532

Bigum, C. (2003) The knowledge producing school: moving away from the work of finding educational problems for which computers are solutions. *Computers in New Zealand Schools* Retrieved: August 15 2007. http://www.deakin.edu.au/education/lit/kps/publications.html

Butters, G., Hulme, A., & Brophy, P. (2007). Supporting Creativity in Networked Environments: The COINE Project. *Ariadne*(51). Retrieved: 21 September 2007. http://www.ariadne.ac.uk/issue51/brophy-et-al/

Chan, S. (2007). *Tagging and Searching – Serendipity and museum collection databases.* Paper presented at the Museums and the Web 2007, San Francisco. Retrieved: 21 September 2007. http://www.archimuse.com/mw2007/papers/chan/chan.html

Chan, S., & Spadaccini, J. (2007). *Radical Trust: The State of the Museum Blogosphere*. Paper presented at the Museums and the Web 2007, San Francisco. Retrieved: 21 September 2007. http://www.archimuse.com/mw2007/papers/spadaccini/spadaccini.html

Clark, C. J. (1998). *Let Your Online Learning Community Grow*. Paper presented at the Association for Computers and the Social Sciences (CSS) Annual Meeting 2000, Chicago, IL.

Clarke, S. (2003) *Enriching Feedback in the primary classroom* (London, Hodder and Stoughton)

Condie, R & Livingston, K. (2007) Blending online learning with traditional approaches: changing practices *British Journal of Educational Technology* 38 (2): pp.337-348

Conlon, T. & Simpson, M. (2003) Silicon Valley versus Silicon Glen: the impact of computers upon teaching and learning: a comparative study *British Journal of Educational Technology* 34 (2): pp.137-150

Cothrel, J., & Williams, R. L. (1999). On-line communities: helping them form and grow. *Journal of Knowledge Management, 3*(1), 54-60.

DCMS (2005). *Understanding the Future: Museums and 21st Century Life. The Value of Museums*. (London: Department for Culture, Media and Sport). Retrieved: 21 September 2007. http://www.culture.gov.uk/Reference_library/Consultations/2005_closed_consultations/21_centuary_museums.htm

DCMS (2005). *Understanding the Future: Museums and 21st Century Life – A Summary of Responses*. (London: Department for Culture, Media and Sport). Retrieved: 21 September 2007. http://www.culture.gov.uk/Reference_library/Publications/archive_2005/understanding_museums_21century_responses.htm

DCMS (2006). *Understanding the Future: Priorities for England's Museums*. (London: Department for Culture, Media and Sport). Retrieved: 16 September 2007. http://www.culture.gov.uk/Reference_library/Consultations/2006_closed_consultations/cons_uf_pem.htm

DCMS (2007). *Culture on Demand: Ways to engage a broader audience - Summary*. (London: Department for Culture, Media and Sport). Retrieved: 21 September 2007. http://www.culture.gov.uk/Reference_library/Research/research_by_dcms/cultureondemand.htm

DfES (2006). *2020 Vision: Report of the Teaching and Learning in 2020 Review Group*. (Nottingham: Department for Education and Skills). Retrieved: 21 September 2007. http://publications.teachernet.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=DFES-04255-2006

DfES (2006) *Butterflies for the use of ICT Part 1& Part 2: The London Challenge for World Class education* (Nottingham, DfES) Retrieved: August 2007. www.dfes.gov.uk/citychallenge/pdfs/3502_Butterflies%20Book_06_v2a.pdf

DigiCult (2002) Integrity and authenticity of digital cultural heritage objects, Thematic Issue 1, August 2002. Retrieved: 21 September 2007 http://www.digicult.info/downloads/thematic_issue_1_final.pdf

Downes, S. (2005). *E-learning 2.0*. eLearn Magazine. Retrieved: 2007, 21 September. http://www.elearnmag.org/subpage.cfm?section=articles&article=29-1

Dysthe, O. and Engelsen, K.S. (2004). Portfolios and assessment in teacher education in Norway: a theory-based discussion of different models in two sites. *Assessment & Evaluation in Higher Education*, Vol. 29, No. 2.

Ellis, M., & Kelly, B. (2007). *Web 2.0: How to Stop Thinking and Start Doing: Addressing Organisational Barriers.* Paper presented at the Museums and the Web 2007, San Francisco. Retrieved: 21 September 2007. http://www.archimuse.com/mw2007/papers/ellis/ellis.html

Feenberg, A (1989) in R. Mason & A. Kaye (Eds.) (1989) Mindweave:communication, computers and distance education. Oxford: Pergamon Press, pp. 22-39

Ferdig, R (2006) Assessing technologies for teaching and learning: understanding the importance of technological pedagogical content knowledge *British Journal of Educational Technology* 37(5): pp.749-760

Fichter, D. (2006). *Web 2.0, Library 2.0 and Radical Trust: A First Take*. Retrieved: 2007, 21 September. http://library2.usask.ca/~fichter/blog_on_the_side/2006/04/web-2.html

Fisher, M., & Twiss-Garrity, B. (2007). *Remixing Exhibits: Constructing Participatory Narratives With On-Line Tools To Augment Museum Experiences.* Paper presented at the Museums and the Web 2007, San Francisco. Retrieved: 21 September 2007. http://www.archimuse.com/mw2007/papers/fisher/fisher.html

Fisher, T (2006) Educational transformation: Is it, like 'beauty', in the eye of the beholder, or will we know it when we see it? *Education Information Technologies* 11: pp.293-303

Freedman, M. (2003). Think different: combining online exhibitions and offline components to gain new understandings of museum permanent collections. Paper presented at the Museums and the Web 2003, Toronto. Retrieved: 21 September 2007. http://www.archimuse.com/mw2003/papers/freedman/freedman.html

Freire, P. (1970). *Pedagogy of the oppressed* (New York, Seabury Press)

Garrison, D.R. & Anderson, T. (2003) *E-learning in the 21st century: A framework for research and practice* (Oxon, RoutledgeFalmer)

Gaskill, M., McNulty, A. & Brooks, D.W. (2006) Learning from Webquests *Journal of Science and Technology* 15(2): pp.133 – 136

Gewirtz, S. (2002) *The Managerial School; Post-welfarism and Social Justice in Education* (London, Routledge)

Giaccardi, E. (2005). Draft: Toward An Evolution of the Virtual Museum: Collective Storytelling and Social Creativity in the MUVI Project. *Design Issues*. Retrieved: http://x.i-dat.org/~eg/research/pdf/Giaccardi_DesignIssues05.pdf

Green, D. (2004). How Fares the Wired Museum? Report on the 32nd Annual Conference of the Museum Computer Network (November 10-13, 2004, Minneapolis, Minnesota). *D-Lib, 10*(12). Retrieved: 21 September 2007. http://www.dlib.org/dlib/december04/green/12green.html

Green, H., Facer, K. and Rudd, T. with Dillon, P & Humphreys, P. (2005) *Personalisation and Digital Technologies* (Futurelab) Retrieved: August 2007 www.futurelab.org.uk/resources/documents/opening_education/Personalisation_report.pdf

Hamma, K. (2004). The role of museums in online teaching, learning, and research. *First Monday, 9*(5). Retrieved: 21 September 2007. http://firstmonday.org/issues/issue9_5/hamma/index.html

Hargreaves, A (2003) *Teaching in the Knowledge Society; education in the age of insecurity* (Maidenhead, Open University Press)

Hawkey, R. (2002). The lifelong learning game: season ticket or free transfer? *Computers & Education, 38*(1-3), 5.

Hawkey, R. (2004). *Learning with digital technologies in museums, science centres and galleries*. (Bristol: Futurelab). Retrieved: 16 September 2007. http://www.futurelab.org.uk/resources/publications_reports_articles/literature_reviews/Literature_Review205

Hayles, K N (1999) *How we became posthuman* (University of Chicago Press)

Hazan, S. (2004). *Weaving Community Webs: A Position Paper*. (Salzburg: Digicult). Retrieved: 21 September 2007. http://www.digicult.info/pages/Themiss.php

Hein, G. (1995). The Constructivist Museum. *Journal for Education in Museums, 16*. Retrieved: 21 September 2007. http://www.gem.org.uk/pubs/news/hein1995.html

Hetherington, K. (2000) 'Museums and the visually impaired: the spatial politics of access', The Sociological Review, 48 (3) 444- 63. p.450

Holden, J. (2007). *Logging On: Culture, participation and the web*. (London: Demos). Retrieved: 21 September 2007. http://www.demos.co.uk/publications/loggingon

Huhtamo, E. (2002). *On the Origins of the Virtual Museum*. Paper presented at the Virtual Museums and Public Understanding of Science and Culture, Stockholm, Sweden. Retrieved: 21 September 2007. http://nobelprize.org/nobelfoundation/symposia/interdisciplinary/ns120/about.html

Illeris, H. (2006). Museums and galleries as performative sites for lifelong learning: Constructions, deconstructions and reconstructions of audience positions in museum and gallery education. *Museum and Society, 4*(1). Retrieved: 21 September 2007. http://www.le.ac.uk/ms/m&s/Issue%2010/2%20Illeris.pdf

Jones, S. (2002). *The HyperMuseum*. Paper presented at the 3rd Science Centre World Congress, Canberra, Canberra. Retrieved: 21 September 2007. http://www.culture.com.au/brain_proj/Stephen%20Jones/HyperMuseum.pdf

Kelly, L. (2006). Visitors and learners: investigating adult museum learning identities: University of Technology Sydney.

Kelly, L. (2007). *The Interrelationships between adult museum visitors' learning identities and their museum experiences*. University of Technology, Sydney.

Knell, S. J. (2003). The shape of things to come: museums in the technological landscape. *Museum and Society, 1*(3). Retrieved: 21 September 2007. http://www.le.ac.uk/museumstudies/m&s/issue%203/msknell.pdf

Krasne, A. (2005). *What Is Web 2.0 Anyway?* TechSoup. Retrieved: 2007, 21 September. http://www.techsoup.org/learningcenter/webbuilding/page4758.cfm

Lagerkvist, C. (2006). Empowerment and anger: learning how to share ownership of the museum. *museum and society, 4*(2). Retrieved: 21 September 2007. http://www.le.ac.uk/museumstudies/m&s/issue%2011/lagerkvist.pdf

Lankshear, C. & Knobel, M. (2003) *New Literacies: changing knowledge and classroom learning* (Maidenhead, Open University Press)

Lankshear, C. and Knobel, M.(2006) *New Literacies: Everyday Practices & Classroom Learning* (Maidenhead, Open University Press)

Lave, J. and Wenger, E. (1991). *Situated learning: legitimate peripheral participation*. (Cambridge : Cambridge University Press)

Leinhardt, G., & Crowley, K. (2002). Objects of learning, objects of talk: Changing minds in museums. In S.G. Paris, (Ed.), *Perspectives on object-centered learning in museums*. Mahwah, NJ: Lawrence Erlbaum.

Lifelong learning UK (2007) *Addressing literacy, language, numeracy and ICT needs in education and training: defining the minimum core of teachers' knowledge, understanding and personal skills: A Guide for ITE* (Lifelong learning UK) Retrieved: August 2007. www.lifelonglearninguk.org/documents/nrp/minimum_core_may_2007_3rd_2_version.pdf

Lord, B. (2006). Foucault's museum: difference, representation, and genealogy. *Museum and Society, 4*(1). Retrieved: 21 September 2007. http://www.le.ac.uk/museumstudies/m&s/Issue%2010/1%20Lord.pdf

Lorenzo, G, Oblinger, D and Dziuban, C (2006) How Choice, Co-Creation, and Culture Are Changing What It Means to Be Net Savvy. *Educause Learning Initiative, Paper 4*. October 2006. Retrieved: 16 September 2007. http://www.educause.edu/ir/library/pdf/ELI3008.pdf

Loveless, A. (2003) *The Role Of ICT* (Oxon, RoutledgeFalmer)

Mason, I. (2000). *The social webs that must be wove:. information management, museums and the. knowledge industry.* Paper presented at the Museums Documentation Association Conference, Newcastle, England. Retrieved: 21 September 2007. http://www.geocities.com/jadestarfish/papers/mdapaper15.pdf

Mishler, E. G. (1991) 'Representing discourse: the rhetoric of transcription', *Journal of Narrative and Life History* 1 (4) 255-280

MLA (2004). *Inspiring Learning for All*. Museums Libraries Archives Council. Retrieved: 2007, 29 August. http://www.inspiringlearningforall.org.uk

Moore, A. (2000) *Teaching and learning: pedagogy, curriculum and culture* (Oxon: RoutledgeFalmer)

NMDC (1999). *A Netful of Jewels: New Museums in the Learning Age*. (London: National Museum Directors' Conference). Retrieved: 21 September 2007. http://www.nationalmuseums.org.uk/images/publications/netful_of_jewels.pdf

O'Neill, M (2004) Enlightenment museums: universal or merely global? *Museum and Society* 2 (3) 190-202

O'Reilly, T. (2005). *What is Web 2.0: Design Patterns and Business Models for the Next Generation of Software*. O'Reilly Media. Retrieved: 2007, 21 September. http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html

Oblinger, D (2003) Boomers, Gen X-ers and Millenials: understanding the new students (Boulder CO: Educause) Retrieved: 16 September 2007 http://www.educause.edu/ir/library/pdf/erm0342.pdf

Owen, M., Grant, L., Sayers, S., & Facer, K. (2006). *Social Software and Learning*. (Bristol: Futurelab). Retrieved: 21 September 2007. http://www.futurelab.org.uk/resources/publications_reports_articles/opening_edu cation_reports/Opening_Education_Report199

Peacock, D., & Brownbill, J. (2007). *Audiences, Visitors, Users: Reconceptualising Users Of Museum On-line Content and Services.* Paper presented at the Museums and the Web 2007, San Francisco. Retrieved: 21 September 2007. http://www.archimuse.com/mw2007/papers/peacock/peacock.html

Pollard, A. (2002) *Reflective Teaching: Effective and Research-based Professional Practice* (London, Continuum)

Poster, M (2001) *What's the matter with the internet?* Minneapolis: University of Minnesota Press

Prensky, M (2004) *Digital game-based learning* (London: McGraw-HIll)

Preziosi, D and Farago, C (2004) *Grasping the world : the idea of the museum*. Aldershot: Ashgate.

Prosser, D., & Eddisford, S. (2004). Virtual Museum Learning. *Information Technology in Childhood Education Annual, 2004*(1).

Reynolds, D., Treharne, D. & Tripp, H. (2003) ICT – the hopes and the reality *British Journal of Educational Technology* 34 (2): pp. 151-167

Ross, M. (2004). Interpreting the new museology. *museum and society, 2*(2). Retrieved: 21 September 2007. http://www.le.ac.uk/ms/m&s/Issue%205/ross.pdf

Rowland, N and Rojas, F (2006) Bringing technology back in: a critique of the institutionalist

perspective on museums. Museum and Society 4 (2) 84-95

Russell, T. (1994). The enquiring visitor: usable learning theory for museum contexts. *Journal of Education in Museums, 15*. Retrieved: 21 September 2007. http://www.gem.org.uk/pubs/news/russell1994.html

Russo, A., Watkins, J., Kelly, L., & Chan, S. (2007). Participatory Communication with Social Media, Engaging with Social Media in Museums. not yet published.

Schaller, D., Allison-Bunnell, S., Borun, M., & Chambers, M. (2002). *How Do You Like To Learn? Comparing User Preferences and Visit Length of Educational Web Sites*. Paper presented at the Museums and the Web, Pittsburgh. Retrieved: 21 September 2007. http://www.eduweb.com/likelearn.html

Siegel, J (2000) *Desire and excess: the nineteenth century culture of art*, Princeton NJ: Princeton University Press

Siemens, G (2004). Connectivism: A Learning Theory for the Digital Age. Retrieved 24 September 2007. http://www.elearnspace.org/Articles/connectivism.htm

Somekh, B. (2004) Taking the Sociological Imagination to School: an analysis of the [lack of] impact of information and communication technologies on education systems *Technology, Pedagogy & Education* 13(2): pp. 163-179

Soren, B. J. (2004). *Research on 'Quality' in Online Experiences for Museum Users*. (Gatineau: Canadian Heritage). Retrieved: 21 September 2007. http://www.chin.gc.ca/English/Digital_Content/Research_Quality/index.html

Teachernet (2007) *Learning, teaching and managing using ICT* Retrieved: September 2007 .   http://www.teachernet.gov.uk/wholeschool/ictis/

Teather, L. (1998). *A Museum is a Museum is a Museum...Or Is It?:Exploring Museology and the Web*. . Paper presented at the Museums and the Web, Toronto, Ontario. Retrieved: 21 September 2007. http://www.archimuse.com/mw98/papers/teather/teather_paper.html

Trant, J. (2006). Draft: Exploring the potential for social tagging and folksonomy in art museums: proof of concept. *New Review of Hypermedia and Multimedia*. Retrieved: 21 September 2007. http://www.archimuse.com/papers/steve-nrhm-0605preprint.pdf

Walsh, P. (1997). *The Web and the Unassailable Voice.* Paper presented at the Museums and the Web 1997, Los Angeles, California. Retrieved: 21 September 2007. http://www.archimuse.com/mw97/speak/walsh.htm

Watkins, J., & Russo, A. (2007). Participatory Design and Co-creativity in Cultural Institutions: Queensland University of Technology.

Weber, J. (2007). Thinking Spatially: New Literacy, Museums, and the Academy. *Educause, 42*(1). Retrieved: 21 September 2007. http://www.educause.edu/apps/er/erm07/erm0716.asp?bhcp=1

Weil, S. (1999). From Being about Something to Being for Somebody: The Ongoing Transformation of the American Museum. *Daedalus, 128*(3), 229-258. Retrieved: 21 September 2007. http://findarticles.com/p/articles/mi_qa3671/is_199907/ai_n8829390/print

Wenger, E. (1998). *Communities of practice: learning, meaning, and identity*. (Cambridge: Cambridge University Press)

White, N. (2004). *Facilitating and Hosting a Virtual Community*. Full Circle Associates. Retrieved: 2007, 17 September. http://www.fullcirc.com/community/communityfacilitation.htm

Project team

Sian Bayne, sian.bayne@ed.ac.uk
Brian Martin, brian.martin@ed.ac.uk
Jen Ross, jen.ross@ed.ac.uk
Zoe Williamson, zoe.williamson@ed.ac.uk