

Time to Play: Experiential Learning Using Interactive Technologies

Malcolm Ferris

Independent New Media Developer/Curator and Research Fellow and Coordinator of the Centre for Research in Electronic Art & Communication at the University of Hertfordshire.

Email: malcolm.ferris@lineone.net

Abstract

This paper offers a case study of a permanent gallery curated and developed by the author for one of the National Museums of Science & Industry in the UK. The gallery was composed entirely of interactive digital media art installations that were employed in an experiential interpretation strategy drawing attention to technology-based issues of an intangible nature. A short introduction to the project is followed by a brief description of the Curatorial Agenda and its implementation, as some appreciation of this background is important in understanding how the experiential mode of address was intended in relation to the subject. The paper then seeks to explain how we might figure the nature of the experiential encounter with the technology-based exhibits contained within the gallery. It does this by developing an account of the visitor experience that draws upon descriptive phenomenological approaches to understanding our relations to objects and events.

1 Introduction

This paper presents a case study of a permanent gallery curated and developed by the author for the National Museum of Photography Film & Television (NMPFT). The NMPFT is a large state owned and publicly funded museum in the UK whose remit is to explore the history and relations between media technology, the creative industries and culture. The museum possesses a world-class collection of over three million artefacts and has particularly good coverage of early photographic history, early cinematography, and early British television. Within this context, the object of the new gallery was to enquire into the way audio-visual experience is evolving through a broad set of digital interactive mechanisms into what has been referred to as the 'post-cinematic' and 'post-broadcast' world. The project resulted in a gallery that was composed entirely of interactive digital media art installations employed in an experiential interpretation strategy that drew attention to our relationship and engagement with digital media technologies. As such, the installations were not presented as secondary didactic sources (as in, say, the standard interactive information kiosk paradigm) but as primary artefacts in themselves. Many used novel unencumbered interfaces to interweave the virtual with real gallery space to create so called 'hybrid' or 'mixed reality' spaces. These larger-scale installations not only had explicit space shaping architectonic effects, they were also designed to construct distinct visitor performances within designated areas. The project was first opened to the public in 1999 but is now in the process of being decommissioned. This workshop therefore provides an appropriate event in which to take stock of the NMPFT project, which was generally seen as one of the most ambitious experientially based digital interactive gallery projects of its kind in the UK.

2 Curatorial Agenda

The Curatorial Agenda drew upon the developmental history of lens-based and mechanical media as revealed in the collections of the NMPFT. An essential aspect of this history can be characterised as the progressive investigation of the temporal and spatial modalities implicated in the development of machine media - from single image photography, to chronophotography, through to the framed movement of early film - and in particular how these properties indicate 'presence' and narrative form. The new gallery posited the continuation of this vector through computer-based audio-visual media, with the fictive (or virtual) time and space implicit in the artefact emerging beyond the confines of the image screen into a wider frame that takes in the real world of user interaction and directly encounters the 'embodied' sensory-motor time and space of the viewer.¹ This account emphasised concepts of interface and interactivity, with these contested constructs being seen as the sites of a critical encounter between the technological, the psychological, and the sociological. An encounter in which the 'restricted freedoms' of the rule-based (computational) system can effect complex individual and social narratives that frequently challenge common perceptions of place, space and identity.

3 Conceptualisation-Orchestration of the Visitor Experience

The figuration of the Curatorial Agenda implied a decisive move beyond the traditional ('exo-physical') investigative stance of the detached observer synonymous with static artefact-based galleries, to a participative ('endo-physical') exploration of the temporally and spatially dynamic dimensions of interactive experience from, as it were, the inside. In this conception, a way of *experiencing* the world would be a way of *knowing* the world.² To achieve this the curatorial agenda was first expressed as a series of 'paradigms' or short statements encapsulating the core principles and assumptions underpinning the project and casting a meta-level interpretive perspective relevant to the entire the gallery. This 'paradigm level' set the framework for the development of secondary level elements, conceived as 'domain' based groupings of cognate themes and issues offering a more detailed analysis of, and/or perspectives upon, the paradigm (i.e., gallery) level statements. The key elements of the domain descriptions were then developed and expressed as a series of artefact level examples. This crucial move from domain level descriptions to creative experiential constructions was guided by heuristic considerations that sought to dramatise the potential of digital media technologies to impact upon human sensibilities and thus facilitate interpretation of the domain (and behind it, gallery) level themes. In this way the visitor experience was orchestrated as series of inter-textual relationships between three semantic levels: (1) readings of individual artefacts; (2) readings of 'domain' clusters of artefacts; (3) readings of the relations between domains at the gallery level. (It is also important not to forget the framing functions of the wider museum, and its more traditional galleries, in relation to this 'experiential' gallery). Actual texts pertaining to all three levels of interpretation were positioned at strategic points throughout in order to gently orientate and guide the thought of visitors. But these were fairly short and discrete with the emphasis placed firmly upon the experiential installations, picked out in pools of light within the generally darkened atmosphere of the gallery. This darkened (cinematic) space encouraged visitors to disconnect from everyday experience, to suspend disbelief, and to actively engage as actors/participants within the

**Re-Thinking Technology in Museums:
Towards a New Understanding of People's Experience in Museums**

interactive 'event-spaces' of the installations (the prescribed 'play-areas') as the principal way to understand the gallery.

4 Play as Experiential Learning

The exhibition was thus posited as a form of participatory or living theatre in which visitor interaction behaviours were made explicit and became a vital ingredient in the understanding of the exhibition. The spirit of play was central to this approach – play as discovery, as invention, and as a means of rehearsing the self in new situations.³ Thus the learning dimensions were delivered through the way the three-levels of the system space encouraged and supported a playful dialogical intertwining and interaction of multiple agencies, machinic and human (visitors as observers, as actors, as avatars, as subjects, as authors) frequently involving the ludological pleasures of 'rule-set' exploration (in emergent patterning, increasing familiarity with system-states, flow and immersion).⁴ The relationships arising from these agencies were composed of verbal and non-verbal reciprocities, commitments, and refusals, and the emotional, reflective and cognitive inputs - observations, speculations, agreements, humour - deriving from these processes.

5 Experiential Dimensions of Interpretation

The primary sites of interpretation and understanding for visitors were the individual domain artefacts. Some of these can be characterized as largely self-contained electronic worlds. But many presented mixed 'reality' environments combining the virtual with the real within designated 'event-spaces' in ways that drew upon visitor performances within the physical gallery space. In these event spaces interpretation turned upon, at least at the outset, the search for appropriate strategies that might elicit the artefacts intentionality (i.e., the underlying rules governing its state) in relation to the domain level readings. This engagement consisted of a series of play activities through which actors became aware of the potentialities of their agency within the system. Typically, participants were not initially sure what was possible; they were obliged to probe the environment and interactivity became a process-related variable constructed around this act of investigative play. This developed into a type of search and evaluation game that took place within the temporal and spatial conditions imposed by the 'event space' of the responsive artefact, and which required that actors moved iteratively through a series of perceptual, affective and evaluative cycles in order to discern, interpret, elicit and control, appropriate system responses. The separation of experience into perceptive, affective and evaluative states is, to a degree, a heuristic device intended to aid our understanding. In practice there are seldom hard boundaries between the three conditions and interpretation is based upon the coordinated operation of the three in combination. This accepted, a tentative description of this experiential process from a first person perspective follows:

5.1 Primary Perceptions

I begin with my awareness of the phenomenal presentation of the work. As I enter the 'event space' of the artefact I trigger a response and my perceptual systems process the feedback data. I am aware of the simultaneous and momentary events of choreographed movement, colour and form that my presence initiates. There is a kind of mystery to it, but I also sense the 'ecology' of behaviour and meaning within the system that I

Re-Thinking Technology in Museums: Towards a New Understanding of People's Experience in Museums

intuitively know I must deduce. As I move deeper into the process of exploration I become drawn into a phase that can be characterized as immersion.

5.2 Affective/Constructive Immersion

The state of immersion holds as I become absorbed in the artefact. It can perhaps be seen as consisting of two levels. These are not wholly separate (it is really a question of emphasis) but there are, arguably, discernable states, and my experience consists in a sort of flipping between these.

5.2.1 Affective Immersion

I become aware of the rhythm of the events, their pace, arrangement and punctuation. I can become involved to the point where my awareness of myself as a separate entity is significantly lessened and I become caught up in, and connected with, the system or 'game' state. This might be thought of as a kind of 'aesthetic consciousness of presence' - or what video-gamers call 'being in the zone' - a sort of game-play 'Zen'. Of course there is cognitive processing going on, but it is automatic and not the primary object of my awareness. The object of my attention is essentially my fitting into the activities within the 'event-space'.

5.2.2 Constructive Immersion

Secondarily, there exists a more constructive, as opposed to affective, state of cognition. As the kinesthetic begins to structure into recognisable patterns I begin to discern agency and meaning and to assess my experience. At this kind of secondary level of immersion my awareness is drawn beyond the range of the immediate phenomena towards other possibilities and probabilities - suggestions in which I am drawn to evaluate possible meanings, the significant characteristics, agreements and disagreements with other installations in and beyond the immediate domain. Continuing in this manner, my (earlier) experiences and thoughts regarding particular artefacts become, over the duration of my visit, (and hopefully beyond), subject to deepening re-interpretations of their sense.

5.3 Disengagement

Finally, the 'interactive' experience ends when I master the logic driving the system to the point where it ceases to be interesting. The sense of rapture diminishes and may be followed by feelings of satisfaction, or perhaps frustration and/or even boredom. However, it is important to note that the more constructive level of engagement (identified in 5.2.2 above) continues to develop after I remove myself from the event-space of the installation. Furthermore, domain assemblages contain a degree of redundancy, meaning that any specific installation has the power to link with, and at least partially explicate, other installations, and other domains. In this way a dense overlapping information environment is created where rich links can be discovered between the applications and what they stand for. Thereafter, as I continue to move around the domains encountering other installations and critical texts, so the constructive critical dimension of engagement with the gallery continues to develop, hopefully taking on a more reflective nature.

6 A Dialogical Intertwining of Multiple Agencies

At the heart of the experiential process described above is the issue of 'agency'. That is, the nature of my relationship with the system, and how I sense its intentionality, my own presence in the way it acknowledges me, and the way in which it manifests or mediates other human and machinic presences for me. In short, there is a complex, multiple agency system at work that induces a continual flipping, or oscillation, between sometimes

Re-Thinking Technology in Museums: Towards a New Understanding of People's Experience in Museums

complimentary, sometimes conflicting, identities. How I experience and evaluate the complex interactions between these ontological entities is a primary source of the epistemic value of the gallery. A brief description of the principle agencies therefore follows, although the manner and intensity in which they would manifest would fluctuate according to the specifics of the installation and the people using it.

6.1 Myself as Agent

Primarily I am conscious of myself as protagonist. This self-awareness is developed through the way my sense of 'presence' is acknowledged in and through the system (see 6.4 below for example). The critical dimension of my self-awareness is also attuned by the existing ideas and beliefs that I bring to the artefact, and then further alerted by the semantic context - be it the domain or gallery level prompts.

6.2 Other 'Actor' Agencies

In some of the multi-user installations, the work must be performed in concert with other visitors, with the systems implementing playful types of connection between participants. Thus I sense that my manipulation, understanding and appreciation of the scene is dependent, in part, upon the will to participate of others. In this way, although the installations are formal systems constructed around rule-play discovery, they generate informal behaviours and experiences based mostly on social interactions, where participants experience aspects of commitment, reciprocity and verbal and non-verbal communication, as mediated by the machine.⁵

6.3 System State Agency

The software engine executes a series of logically connected operations according to pre-established rule-sets that transform inputs before mapping them to outputs. In this sense it has no real intentional relationship to the world. Yet my demand for inter-subjective dialogue and meaning adds to, or 'completes', this input/output cycle through readings that are disposed to ascribe an intentional stance to the phenomenal presence of the machine-system. Thus as noted in Section 5.2 above, I become aware that there is a script, or program (rule-set) within the machine orchestrating the system and that I must discover and 'read' the 'character' and 'role' of this script (its 'intentionality') through the evidence of its performance - its feedback patterns and cycles that are do with pace, repetition, looping (etc) as mentioned earlier. If the system also stages AI 'bots' the experience and its demands are mediated through these avatar presentations and their associations, (see below).

6.4 Myself as Avatar

In some of the gallery's digital environments, my presence is implemented through an avatar. My relationship to this construct is problematic. Occasionally the 'avatar' is little more than an on-screen graphic element, as in the 'Digital Portal' (see fig. 1), which enables me to be immediately and directly aware of my 'presence' in the 'event-space'. Other installations present scenarios in which I am invited to invest strongly in an electronic representation of myself, for example, in 'Telematic Dreaming' (see fig. 2), and in 'Another Time, Another Space' (see fig. 3). But in both these instances the systems conspire to produce something of a distancing effect that inhibits strong

Re-Thinking Technology in Museums: Towards a New Understanding of People's Experience in Museums

identification with myself as the owner of the actions and feelings generated within the installations. Yet again, other installations, such as 'TechoSphere II' (see fig. 4) stage the avatar as a separate character, whilst at the same time inviting a degree of identification with it that allows me to view myself as implemented within the fictive electronic world. Thus in the same way that I flip between affective and constructive modalities, so at the same time I can flit between these double fictitious avatar states: my presence simultaneously being outside the fictive space and within it by virtue of the avatar.

6.5 Others as 'Avatars'

I can experience the presence of 'others' as avatar representations within the environment. These could be real people, as in 'Telematic Dreaming', or AI 'bots' as in 'TechnoSphere'. The experience and challenge will, of course, be very different depending on which it is, and I am likely to be more conscious of my performance if I suspect that a real mind is observing from behind the electronic representation.

6.6 Others as Spectators

At any time there will normally be people watching my performance, and most likely commenting. As with the case of the avatar representations of other participants, so I am apt to be split between my own edification and that of the audience for whom I also, in a very real sense, perform.

6.7 Authorial/Curatorial Agencies

The issue of authorship is closely tied up with the way I am disposed to read the intentionality of the system. As noted in 6.3 above, a given system state has no real 'interest' in the world: rather it is the author that has instituted any intentional relation by constructing rule-sets whose outputs have significance within a given operational context. Therefore, while I may be disposed to depict intentionality as a feature of the machine-system, I may nonetheless be at least faintly aware that it 'speaks' for a displaced artist/programmer as creator. Furthermore, at times I am likely to be acutely sensitive to the fact that I am being presented with a particular set of digitally induced encounters within the domains, contextualised by the artifice of the gallery, and that the entire spectacle was brokered by other (curatorial) wills.

7 Subjectivism & Indeterminacy

It may be thought that a risk was carried in the way the gallery privileged the individual experience of the subject and in the way that cognition was almost literally 'performed'. Certainly, authenticity in the context of this project was not so much related to materials, unambiguous authorship or design (the traditional evaluative categories pertaining to museological presentation) but to qualities of *experience* and *interaction* and of the *meanings* inscribed in particular performances. Moreover, this immanent involvement of the visitor had the potential, at times, to eclipse any clear curatorial/authorial reading. Thus depending upon the circumstances encountered within an installation, such as the density of users and their interpretive disposition (i.e., character, mood and points of interest) so different, even contradictory, interpretations could arise. In this sense every visitor 'performance' had the potential to be unique with the 'actors' bringing forward voices and thoughts not rehearsed by any curatorial/authorial agencies. However, these

**Re-Thinking Technology in Museums:
Towards a New Understanding of People's Experience in Museums**

'unregulated' interpretive acts were, in the case of this gallery, of fundamental importance, for one of the principal points of the gallery was to suggest that single point perspectives on the subject are inadequate and over-simplistic. Moreover, it would be wrong to characterise the situation as one of massive indeterminacy and undecidability. Rather, as we have seen, the tripartite organisation of the gallery as a series of discursive 'texts' coded meaning and helped to move the individual interpretive experience into a shareable inter-subjective domain - thus bringing a degree of 'stability' to the interpretive acts of the individual. In this way some of the obligation for meaning making (although by no means all) was displaced from their subjectivity.

8 Concluding Remarks

This paper has discussed a particular museological project that sought to negotiate a new relationship with contemporary audiences by promoting experiential learning based upon the open-ended interpretation of creative media technologies. By most accounts it was at least partially successful in this: during its lifetime the gallery proved itself popular with both lay audiences and media professionals, and was consistently voted best of all the NMPFT's public galleries in the museum's Annual Independent Visitor Survey. Its success was also acknowledged through several prestigious national awards, including the Design Business Associations 'Design Effectiveness Awards'. Nevertheless, in reviewing its progress, perhaps one of the key lessons of the project is that participatory and experiential exhibitions, and especially high-technology ones, still rely (possibly more than most museum projects) upon the articulation of deeply embedded and coherent underpinning curatorial agendas. These agendas must be flexible in ways which allow thinking around the subject to develop relationships with the audience that permit individual experiences to play significant roles in the making of meaning and the evaluation of worth. In this way the museums sector will find important means to remain relevant to culture in the 21st century.

Acknowledgements

All images copyright of NMPFT.



Fig 1. 'Digital Portal' Artist: Nigel Johnson. Curator/Producer: Malcolm Ferris

**Re-Thinking Technology in Museums:
Towards a New Understanding of People's Experience in Museums**



Fig 2. 'Telematic Dreaming' Artist: Paul Sermon. Curator/Producer: Malcolm Ferris



Fig 3. 'Another Time, Another Space' Artist: Toshio Iwai. Curator/Producer: Malcolm Ferris



Fig 4. 'TechnoSphere II' Artist: Jane Prophet. Curator/Producer: Malcolm Ferris

Re-Thinking Technology in Museums: Towards a New Understanding of People's Experience in Museums

Notes

¹ This is, of course, an extremely simplified presentation of the progressive development of machine media, a subject that could be interpreted from any number of perspectives. However, the approach developed for this project was an extension of issues that emerge within a particular strand of contemporary philosophical aesthetics. Deleuze, for example, distinguishes two main episodes of cinematic development. A first episode in which time is subordinated to movement, and a post-war episode in which time becomes the ground for an aesthetic showing of the Modernist conditions of subjectivity. The Deleuzian account does not really take account of the impact of digital media technologies, and the NMPFT project sought to take this description a stage further, suggesting that 'new media' surrenders the intensities of the traditional screen image in favour of a wider frame that directly implicates itself in the life of the subject. This is an embodied involvement that implies an equal emphasis upon movement in relation to time and which transposes the screen to the site of the subject, who becomes the image. For example, with 3G mobile technologies this wider frame moves beyond the designated 'event-space' of a stand-alone gallery installation, so that instances in the 'every day' life-cycle of the subject become the locus of the scene. See Gilles Deleuze, *Cinema 2: The Time Image*. Trans. H. Tomlinson and R. Galeta, Athlone, London, 1989.

² Central to this approach was a phenomenological conception of meaning-making that drew upon Heidegger's concept of *techné*, that technology is more than simply a tool or instrument, but an activity through which the self and the world are represented and made sense of. Also of influence was Merleau-Ponty's view that perception is more than a mental or psychological effect of Mind, but the body's "intelligent orientation" in the world. See Heidegger, M. "The Question Concerning Technology", in Krell, D. F. (ed), *Basic Writings Martin Heidegger*, Routledge 2004 edition. And Carmen, T. "Sensation, Judgement and the Phenomenal Mind" in Carmen, T. & Hansen, M. B. N. (eds), *The Cambridge Companion to Merleau-Ponty*. Cambridge, 2004.

³ Just as art is seen as a primary means of understanding the world and ourselves, so many commentators perceive play as an essential aspect of art making and aesthetic appreciation. Again, this view of play as an essential means of orientation and navigation is a view that is strongly represented in the phenomenological tradition, especially as it develops through Gadamer. See Grondin, J. "Play, Festival, and Ritual in Gadamer", in Schmidt, L. K. (2001), *Language and Linguisticality in Gadamer's Hermeneutics*, Lanham (Maryland): Lexington Books.

⁴ Although the gallery interactives were distinct from computer games in both form and content (see note 5 below), as computational artefacts they shared some of the latter's structural qualities. Much of what follows in this paper concerning the ludological has drawn upon the computer games studies literature, in particular the ongoing debate concerning gameplay and narrative and the relation of both to learning. For a discussion of this subject that maps the debate see Lindley, C.A. 'Conditioning, Learning and Creation in Games: Narrative, The Gameplay Gestalt and Generative Simulation' presented at the "Workshop on Narrative and Interactive Learning Environments", Edinburgh, Scotland, 6th-9th August 2002.

Also see Jules, J. 'Games Telling stories? A brief note on games and narratives.' Archived at Game Studies, The International Journal of Computer Game Research, Volume 1, Issue 1, July 2001. <http://www.gamestudies.org/0101/juul-gts/> More recent discussions of gameplay in relation to narrative can be traced through the 'GAMESNETWORK' (Games Research Network) list archive at: <https://listserv.uta.fi/archives/gamesnetwork.html>

⁵ Although this paper traces a connection between computational rule-sets and play, it is important to note that most of the installations in this gallery project worked outside traditional video game paradigms in that there was no overt competitive element - no real winning or losing, gain or loss, as in most computer games of progression. This did not, of course, preclude participants from inventing competitive play strategies within installations if they so chose.