

# Curating Performance Installations

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**In this paper we will examine the use of the digital screen display as a primary form of accessing information within the museum context. We will argue that this mode of dissemination, achieved primarily through a Graphic User Interface (GUI) though highly efficient in providing contextual support, can be detrimental to a wider sense of social interaction and engagement between visitors, both of which are recognised as key aspects of how we experience and learn within the museum. By using the *Edward Gordon Craig: Space & Light* exhibition held at the V&A Museum as a case study, we will explore the potential of a more performative mode of digital interactivity, whereby through notions of the re-enactment, a material reality can be constructed, based not on interpretation or objecthood, but oscillation and trajectory. As such, new perspectives and understandings can emerge through the activation and experience of the visitor within the museum, creating a more embodied sense of learning.**

*Dissemination. Interactivity. Performative. Performance. Installation. Technology. Materiality. GUI. Screen. Museum. Objecthood. Form. Trajectory. Content. Interpretation. Information. Re-Enactment. Exhibition. Experience. Becoming. Being. Nothing.*

## 1. INTRODUCTION

There has been significant attention given to the museum usage of digital technology (Cameron & Kenderine, 2007; Tallon & Walker, 2008; Parry, 2010). A large proportion of this attention has been directed towards two areas. Firstly the potential of a museums online presence, with the promise of enabling the museum to present their collection to, and communicate directly with visitors in a *localised, personalised, and constructivist* manner (Parry & Arbach, 2007). The second concerns the digital screen display within the museum, and its role as a fundamental means of accessing interpretative information (Gammon, 1999).

The heavy reliance of screen interactives within the museum reflects a wider cultural dominance of the digital display as the principle technological means of accessing information. With an estimated 90% of digital screen devices using this mode (Tuck, 2001), the predominant form of digital interactivity is experienced through a Graphic User Interface (GUI), encountered on computer Operating Systems, websites, touch-screens, and smart-phones. GUI is a human-computer interface that uses icons, taskbars, windows and other objects, which can be manipulated and controlled by a mouse or other pointing device. It creates an easy, intuitive, user experience by providing immediate,

visual feedback about the effect of each action (The Linux Information Project, 2004). Through its familiarity and ubiquity the GUI creates a pervasive paradigm of interactive engagement. This paradigm, that favours the easy access of information primarily through a directional, goal-orientated basis, mediates our experience with digital technology on an almost permanent and hegemonic basis. With this in mind it is easy to see why it would be enthusiastically embraced by the museum. It provides visitors access to information, in a recognised and socially practiced form that is apparently effective and efficient, thereby encouraging as wide a spectrum and scale of visitor as possible, both through the museum doors and externally via their website.

However, as highlighted by Christian Heath & Dirk vom Lehn, there are major issues concerning the use of this particular model of interactivity. Principally it is concerned with an interaction between an individual user and the screen, and not an interaction between people (Heath & vom Lehn, 2010). As described by N. Katherine Hayles this should not come as a surprise given that the model has its history rooted in a predominant strand of cybernetics, Artificial Intelligence, and human computer interaction, which promoted the conception of information as a disembodied entity, flowing freely between humans and computers in a

simplified single system; “humans were seen primarily as information-processing entities who are essentially similar to intelligent machines” (Hayles, 1999). This model focuses primarily on the individual’s interaction with a computer system, and presumes that the actions of users are driven principally by plans and goals, and therefore the interface is organised to achieve these goals in the most efficient, and logical way possible (Heath & vom Lehn, 2010).

In this paper we explore the issues arising from this GUI paradigm and its underlying effects and implications within the museum. From this we will use the interactive installation *Edward Gordon Craig: Space & Light*, exhibited at the V&A Museum in September 2010-March 2011 as a case study of an alternative form of digital interactivity, throwing into relief the latent consequences of this approach as well as potential opportunities for the museum and its visitors alike to engage with different models of interactivity. In doing so we hope to introduce the basis for an alternative mode for interactive installations – one that promotes a fully embodied experience within the physical surroundings of the museum, one that fosters social interaction, and one that uses digital interactivity as a tool for a more performative engagement with artefacts, archival material and the museum at large.

## 2. SCREENING ATTENTION

In his observation of the iPhone Matthew Jones highlights the screen’s compelling demand for our full attention, impelling users towards the illuminated digital display, “the iPhone is a beautiful, seductive but jealous mistress that craves your attention, and enslaves you to its jaw-dropping gorgeousness at the expense of the world around you” (Jones, 2007). This complete absorption creates, through a hand-eye relationship, a highly concentrated and focused rendezvous with the screen, replacing a wider social awareness and participation with a decisive engagement and involvement with the activities generated on-screen. Reflecting on this, Tom Armitage draws our attention to how the magnetising effect of the screen display has even percolated into the wider cultural understanding, presented as a virtuous trait, as demonstrated in an Microsoft Mobile 7 advert which depicts a crowded city street scene where everybody is transfixed to their mobile phones, oblivious to their chaotic surroundings (Armitage, 2011).

Though the reduction of outside distractions is obviously useful for the interface, it could have detrimental effects on learning within the museum environment. Research undertaken by Holly A. White of Eckerd College and Priti Shah of the

University of Michigan on measuring the creativity of people with attention deficit hyperactivity disorder (ADHD), as well as recent research by scientists at the University of Toronto and Harvard, suggest that constructive distractions could have highly positive effects on learning and knowledge creation (White & Shah, 2011).

Furthermore, the screen’s demand for our full attention could arguably reveal an opaque authoritative dimension to the apparent “user centered” GUI paradigm. Cultural critics have long found different ways to describe the profound transformative effect of technology. Eric Havelock and Walter Ong have both used the notion of ‘transformation theory’ to show how new communication tools, far from simply allowing us to do things more effectively, radically transform human perception and culture (Ong, 1982; Havelock, 1963). In a society that is constructed, maintained and mediated largely through digital forms of communication, interactive technologies that add a tangible dimension of active participation may well have significant and far-reaching transformative powers. It is precisely through its ease of use, pervasiveness and sense of participation that the GUI paradigm imposes its own authority on the content it displays, and as such upon its users. Within the museum this imposing hand could be highly unsympathetic and damaging to the aims of the museum experience.

More significantly, digital interactive displays have a real potential to damage or weaken the collaborative and socially interactive dimension that is so potent in the museum experience/environment. This can be exacerbated by the physical arrangement of the digital screens within the exhibition galleries. For example, a single user access point can make it difficult for non-participants to access the information displayed, turning them into partial witnesses to the activities happening on-screen (Heath & vom Lehn, 2010).

Concentration on the usability, utility, satisfaction, and communicative qualities of an interface design, to the exclusion of possibilities to incorporate sociability, can have damaging social implications. Gillian Crampton Smith describes this neatly: “When IT systems fail to support the social aspect to work and leisure, when they dehumanise and de-civilize our relationship with each other, they impoverish the rich social web in which we live and operate, essential for both well-being and efficiency” (Crampton Smith, 2007).

Social interaction and engagement between visitors is acknowledged to be critical to how we experience and learn within the museum (Falk and Dierking 1992; Hein 1998), as we often visit museums and galleries with friends and family, and

even when visiting on our own we are aware of others around us. Our experience of, and discussions around an object, artefact or exhibition occur in and through the museum. The museum is enveloped by these social interactions, and awareness of others who are present in the same space at the same time as us (cf. Bradburne 2000; Heath & vom Lehn, 2010; Leinhardt, Crowley, and Knutson 2002). The absorbing lure of the digital display and the resulting obfuscation of the outside environment and space is especially felt within the museum, as it has a significant impact on our sensitivity and attentiveness to the presence and behaviour of others, detrimentally affecting the social interaction between visitors (Heath, C. & D. vom Lehn 2010), resulting in a poorer, more disembodied experience.

Another issue that arises from the familiarity and easy access of information is its effect on learning. The very characteristics that make the GUI paradigm so appealing could have a reductive effect on the act of learning in the museum. One of the driving principles of a “user centered “ interface is its ease of use and removal of surplus cognitive effort on the part of the user, as Steve Krug clearly states in his book on web usability, “Don’t make me think! It’s the overall principle – the ultimate tiebreaker when deciding on whether something works or doesn’t in a web design” (Krug, 2006). However recent developments in neuroscience suggest that though familiarity is a comfortable and pleasing state, it can be detrimental to the production of new neurological connections. By measuring the level of brain activity required for different tasks, researchers found that brain activity surged when individuals addressed more difficult problems, compared to when a problem was solved easily where changes in brain activity were virtually undetectable (Chugani, 1996; Shore, 1997). Furthermore, though many believe that reducing superfluous cognitive load is beneficial to the learning process (Sweller & Chandler, 1994), there is increasing evidence that making material harder to learn can actually improve long-term learning and retention (Bjork, 1994; Richland et al., 2005; Duckworth et al., 2011). One experiment increased the depth of processing by requiring the subjects to generate rather than passively consume information, which resulted in higher retention rates (Richland et al., 2005). Similarly, a recent study by Connor Diemand, Daniel M. Oppenheimer, and Erika B. Vaughan found that retention of material could be significantly improved by presenting reading material in a format that is slightly harder to read whereby the brain has to make more effort to process (Diemand et al., 2010).

### **3. DIGITAL OBJECTHOOD**

The use of digital interactivity to access interpretive information has led the digital interface to be framed primarily as a functional, immaterial, virtual informational supplier, with little or no “aura” or presence of its own. Fiona Cameron however argues that digitalization within the museum can create a new digital artefact by way of the very process of deciding what to digitalize, and what not to, which she argues is a critical and active process and one that generates value and meaning equivalent to the physical object (Cameron, 2007). Furthermore, she proposes that far from threatening the “aura” of an artefact as Walter Benjamin suggests (Benjamin, 2008) the value of the original increases as a process of its digitalized replication. Cameron puts forward the notion that both the real artefact and its digital replica by definition are material objects, in that “they are a result of human creativity, exist in real time, can be touched, can be looked at from many angles, and are the target for feelings and actions” (Cameron, 2007). By defining itself as an object in its own right, its particular principles, ‘user behaviour’ and ‘experience’ (Cameron, 2007), can construct a set of material characteristics such as variability, interactivity, computability, collaborative and distributable (Dietz, 1999; Cook & Graham, 2004).

Though Cameron celebrates the liberation of the digital object from the original, she still confines the digital object to the role of interpretative replica, a digital modality restricted to representing the original. Andrea Witcomb, however, manages to break away from this representation trap by stressing the issues in only understanding digital technology within the museum as a tool for interpretation, suggesting the limiting effect on its possible imaginative and emotional uses. Witcomb proposes that rather than simply seeing digital technology as a space that offers more information, there is great promise in seeing “multimedia as a material form of expression” (Witcomb, 2007). By playing with notions of experience, digital interactive installations have the power to affect visitors emotionally, and in doing so have a persuasive power to create an experience in which their sense of self is shifted (Witcomb, 2007).

Certainly the most astute museums have identified the value in providing an experiential environment. As Nick Prior points out, “the most innovative and clear-sighted museum directors are those who recognized and exploited the plasticity of the museum idea in order to overlay various levels of aesthetic experience” (Prior, 2003). However by becoming such centres, museums can no longer maintain a static position “like objective autonomous shells” as Olafur Eliasson describes (Eliasson, 2005). Museums are embedded in the

“experience economy” (Pine & Gilmore, 1999); they are selling experience and therefore have responsibilities with that system. Given that the museum is entrenched within the experiential market place, the question that arises is how, with the increased use of digital interactivity, can the museum avoid simply becoming a venue of consumer pleasure, and instead become one that succeeds in communicating art in a way that maintains a critical dimension by raising challenging, and pertinent questions (Eliasson, 2005)?

#### 4. EDWARD GORDON CRAIG: SPACE & LIGHT – CASE STUDY

With these questions in mind we would now like to use the digital interactive installation, which formed one of the central focuses of the *Edward Gordon Craig: Space & Light* exhibition held at the V&A Museum from September 2010 to March 2011, as a case study for an alternative approach to the use of digital interactive installation within the museum.

The interactive installation was conceived and realised by a cross-disciplinary team of curator Kate Bailey, scenographer Simon Donger, and interactive design consultants AllofUs. The exhibition consisted of a 6x6 metre box, which visitors accessed through two entrances on either side of the box. On entering the darkened space, visitors were greeted with an audio ‘radio play’ which weaved archival recordings of Craig with archival material recited by an actor. Cutting diagonally through the interior was a 3x2 meter calico stretched screen. On one side of the screen sat Craig’s model for *St Matthew Passion*. On the other sat the bespoke 160cm long interactive table, which acted as a digitally enhanced theatre model-box, allowing visitors to explore some of Craig’s key formal ideas through the movement and placement of a number of wooden blocks, figures and light lenses, inspired by Craig’s stage ‘screens’ as well as archival photographic and drawing material of his working methodologies. As visitors moved and composed their Craigian set, a real-time 3D render of their composition was projected onto the calico screen as if they were manipulating a real-life set on stage before their very eyes. This simultaneously gave them a unique, multiple viewpoint of their composition as it was being constructed.

Connected to the bottom of the table was a black base, which spanned the same height and width of the table. Housed inside the base was a camera pointing up towards the Perspex tabletop, an Apple Mac Mini, and a number of infrared lights which flooded the internal space of the base. As visitors placed and moved the wooden blocks, figures and

light lenses around, the camera tracked the movement of the pieces. Using the 3D software package *Unity*, AllofUs were able to build a 3D gaming model of the stage, which, taking the information tracked by the camera, could reconstruct and display (in real-time) a 3D render of the constructed and changing stage as the visitor physically composed it on the table. Furthermore the changes in ‘stage lighting’, which could be manipulated by the visitors’ positioning of the lenses and their adjustment of the levels of light intensity, were accurately reflected in the 3D render. The way the light fell on the objects and the shadows cast could also be realised on screen.

The calico projection screen had an important dual role. It not only provided a screen for the visitor who was interacting with the table, but also acted as a membrane between the two sides of the space. Due to the porous nature of the calico, the projected light was able to seep through the screen, simultaneously displaying the stage composition to visitors on the other side. This simple technique offered us a tangible and eloquent way to further emphasise the physical dimension of light in shaping space, as well as providing a more social forum for the interaction. Furthermore, it created a sense of intrigue and mystery within the space as visitors who had used the interactive installation and then walked around to the other side of the screen were confronted (and often delighted) by the realisation that their activities had been visible to, and enjoyed by, fellow visitors within the installation, bestowing a new understanding of the space and their role in shaping it.

The interactive installation had no instructions and very little interpretive information; it trusted visitors would be propelled to experiment, play, and explore without any clear goals or objectives. As the objects were not fixed to the table, and were therefore relatively easy to steal or misuse, an additional element of trust was placed with visitors. It is a testament to the visitors of the museum that in the seven months in which the installation was exhibited only one piece needed to be replaced. The installation relied on the effectiveness of visitors generating a sophisticated appreciation and deep understanding of the exhibition through their physical actions, thereby generating a richer, embodied, and engaging sensual perception of the relationship between space and light in ways that a touch-screen providing interpretative information on Craig would have been unable to achieve.

The unique use of digital interactivity in the case of the Craig exhibition provided a highly engaging and useful tool for visitors to develop an understanding of some of Craig’s formal principles, achieved through the very process of a physical interaction

and presence in the space. This level of general engagement and understanding would be difficult to achieve in any other medium, and provided both young and old a hands-on experience of creating a Craigian stage set.

However in providing this form of interactivity there was a definite simplification of some of Craig's ideas. In some respect the act of simplification was a necessary and productive process. The installation's success depended in part on pinpointing Craig's key formal principles relating to the topic of the exhibition. In so doing an installation could be created that explored those ideas in a way that enabled visitors to develop an understanding and appreciation of them.

Technical considerations also made it an imperative to focus on a collection of clear key ideas, which could then be translated into a set of technological functions and behaviours that would make up the interface. Limited time and resources also played a significant part. Although it would have been technically possible to develop the installation in such a way that would allow for more complexity, to do so would have required additional time and resources. Furthermore, in the pursuit of crafting an engaging interactive for as wide a range of visitors as possible, some of Craig's more complex and contentious ideas were felt to be potentially distracting to the purpose of the interactive experience as a whole. The success of making an engaging interactive was in some part at the expense of Craig's critical dimension, which would have been more difficult (though not impossible) to embed into the installation. This simplification meant that there was a real risk the installation became as much an installation about interactive technologies as it was about Craig. As such, it could be argued that the qualities and aspects of Craig's theories that were most compatible with digital interactivity highjacked the installation, not necessarily because they were the most important or interesting Craigian themes but that they were the areas that interactive technologies could most effectively deliver. It is worth noting that several people referred to the installation as "the Craig computer game". Though there were obvious aesthetic reasons for this (the projected renders were built using gaming software) it would be naïve to ignore the critical dimension to this nickname.

The obfuscation of significant parts of Craig's critical legacy resulted in the installation becoming primarily an exploration of his formal principles. Again there are a number of possible reasons for this, and it is certainly worthy of further analysis. For the purpose of this paper, however, we would like to highlight one aspect concerning the practical undertaking of such the installation. For the Craig

exhibition there was significant effort on the part of the curatorial team to distil Craig's ideas in such a way that AllofUs, who had some basic knowledge of Craig but were in no way experts on him and his legacy, could interpret them. Likewise, the curatorial team contained a number of Craig experts who had little or a very particular understanding and experience of digital interactivity. As such there was a delicate process of interfacing between the different parties within the exhibition team, creating a real potential for misinterpretation on all sides, as well as exciting new outcomes.

This complex human interfacing placed significant pressure on the curator to be very clear about the aims of the exhibition, not to mention selecting a team capable of operating within such a fragile framework. It also placed a further responsibility on the designers of the installation to fully engage with the subject matter in a way that may have been outside their usual working practice, as well as working with experts/practitioners from different fields who might know little about interactivity, or who might have strong feelings towards the use of it in relation to their area of expertise. However this two-way translation process and constant negotiation has in this case proved to be very fruitful, suggesting great opportunities for future explorations of historic/artistic work or an exhibition topic.

## **5. PERFORMATIVE MATERIALISM**

As Andrea Witcomb has indicated, a multimedia installation can become its own material object which visitors activate by their physical presence in and through the installation (Witcombe, 2007b). However, whilst still bound to the role of a replica or simulation, the Craig installation intimates at a more radical modality for interactive installations within the museum, ways in which it can operate beyond that of an additional interpretive layer or as an object in its own right. It could rather operate in a similar way to the performing arts, whereby each interactive is not seen as an object to rival the original but rather an instigator of a re-enactment. In doing so a materiality can be constructed, not in the interactive installation itself but rather through the resulting generated dialectical tension generated between the original artefact and the re-enacted version which has the original's formal content (the ideas, topics, principles) embedded within it. In this way, the interactive installation becomes a 'tool' for exploration, examination and testing – activated and realised by the visitors' involvement and negotiation with the installation. One could see how (pushed further) the Craig installation might have developed in such a way that it specifically explored space and light within

the gallery itself, whereby light and shadows are cast on the building's interior architecture as well as other visitors, turning the gallery into a stage, concomitantly turn fellow visitors into actors.

This would have removed the need for an interpretative blanket to justify it or the requirement to produce it's own sense of objecthood. As such, its aim would not be to reveal hidden meaning in the original work, but rather to bring attention to the formal qualities of the work, in an attempt to develop "a descriptive, rather than prescriptive, vocabulary—for form" (Sontag, 2009a). In doing so the visitor is confronted with the "sensuous immediacy" (Sontag, 2009b) of experiencing oneself experiencing, or as Robert Irving puts it, "perceiving yourself perceiving" (Eliasson, & Irwin, 2007).

What this model aims to produce is a type of Žižekian parallax rupture, whereby an artefact's physical form and its formal content are separated onto two sides of a Moebius strip-like structure, seemingly connected but in fact opposing each other (Žižek, 2006a). By way of the constant dialectical tension that at once binds and opposes the two sides of this inverted-inside eight formation, a material reality takes shape through a performative process of construction (Malabou, 2008), providing new perspectives and formal understandings. By way of this performative process, the artefact transforms itself into the source of its own mutations, which take the shape of re-enactments. In doing so, the original is prevented from becoming "manageable, comfortable" and complete, thereby maintaining its "capacity to make us nervous" (Sontag, 1961c).

Crucially this material reality is radically different from the one described by Cameron and Witcombe. Žižek formulates it as the following: "Materialism means that the reality I see is never "whole"—not because a large part of it eludes me, but because it contains a stain, a blind spot, which indicates my inclusion in it" (Žižek, 2006b). For him then reality is *in itself* incomplete, "non-all", and in an attempt to fill in this incompleteness reality gets trapped into a 'compulsion-to-repeat' from which materiality emerges, as Žižek describes "precisely because Being and Nothing are not directly identical: Being is a form, the first formal-notional determination, whose only content is Nothing; the couple Being/Nothing forms the highest contradiction, and to resolve this impossibility, this deadlock, one passes into Becoming, into oscillation between the two poles" (Žižek & Woodard, 2011a). This form therefore has a temporal dimension to it "caught up in the tissue of exchange" as Olafur Eliasson suggests (Eliasson, 2009).

Rather than the attempt at becoming a material object itself, the interactive installation generates a process whereby through the oscillation between an artefact's physical form (Being) and its re-enacted formal content (Nothing), a materiality takes shape (Becoming), *ex nihilo* "out of nothing". As Žižek elaborates, "the Nothingness of self-relating negativity, is the very *nihilo* out of which every new figure emerges" (Žižek & Woodard, 2011b). This materiality is actualised by and experienced through the visitor's presence and activity in the installation. As such this materiality is fundamentally performative, continuously in a state of lability, in a constant dialogue with itself, *in-forming* itself as it were. In this sense, notions of materiality shift from objecthood to ones of trajectory, whereby the work of art becomes the trajectory and each re-enactment is simply one of its continuous steps, as suggested by Bruno Latour (Latour, 2011). The system which generates this exchange, this ongoing negotiation, therefore becomes a highly productive and exciting one, as each new re-enactment runs the risk of damaging, losing, or recapturing the original "the aura keeps migrating and might well come back suddenly... or disappear altogether" (Latour & Lowe, 2010). Furthermore (when done well) it also possesses the potent potential to retroactively change the past itself, revealing dimensions of the original that were only made apparent through the re-enactment (Žižek, 2011). This shifts the very idea of time and form from a static end-point position to one that provides a sense of contingency and direction (Eliasson, 2005). Does this not emulate the most recent and current understanding of brain organisation (Malabou, 2008), one of a closed structure, yet one which maintains a radical plasticity, and through the actions it performs a shape is taken, "so it means that inside of it, we have all kinds of possibilities to wiggle and escape from the rigidity of the structure" as Catherine Malabou describes (Vahanian, 2008)?

## 6. CONCLUSION

The digital screen display can certainly enhance visitor's appreciation of the museum experience, especially by providing visitors with pre and post context, which can help focus and guide learning. However as we have indicated, the 'user centred' GUI paradigm of digital interactivity, which focuses on an individualistic mode of interfacing with a digital display to access information, can, in a goal orientated process, be highly disruptive to social interaction and phenomenological awareness within the museum – themselves both crucial and significant elements in forming a rich museum experience. Moreover, the very familiarity and ease of use that the GUI promotes itself on could in fact be detrimental to the act of learning. We have

shown through the case study of the *Edward Gordon Craig: Space & Light* exhibition that an interactive installation does not have to function simply as an informational access system or as a digital screen replica of a physical artefact. It has pointed towards a potential new role where it acts as a vehicle for re-enactments. This intimates that by reshaping the interactive installation into an apparatus for exploration, critique and dissection through re-enactments of an artefact's formal content, the work of art is no longer restricted to physical matter but rather transformed into the process, whereby a malleable and performative experience can materialise. By placing the visitor at the heart of this process they are invited to occupy an active and liable role. Furthermore, by shifting the focus away from the digital screen, one can concentrate on the visitor, their presence and their role in shaping the physical space of the museum through their actions and movement in time. By emphasising an awareness of the bodily presence within a given space, social interaction is fostered. In so doing visitors participate in the phenomenon of a (re)engagement with a full bodily sensory experience. In this regard, the museum can become a place where visitors go to actively contribute, to *take part* in and of the museum, and in doing so they become a consequential factor of its construction. By facilitating such a pursuit, digital interactivity could help shape the museum into a radical, and performative environment for experiencing, forming, and learning.

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