

Interpretation in Practice

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Abstract

The paper begins by considering differing views about the value of interpretation in relation to works of art. Whilst agreeing in part with Sontag's opinion that interpretation that dwells on alternative representations of art obscures our response to it, we argue that there are, nevertheless, valuable forms of interpretation that play a significant role in creative practice allied with research. When practitioners carry out research in parallel with making works, they engage in a process of developing interpretation frameworks that guide their practice and the evaluation of the outcomes. The frameworks for interpretation discussed arise from creative practice in the context of practice-based PhD programmes in interactive digital arts. We describe how practitioner-researchers develop and apply frameworks for interpretation in the context of what we call 'trajectories of practice and research'. The reflexive relationship between the frameworks and the works and how that impacts directly upon creative practice, is central to an understanding of interpretation as we characterise it here. The ideas discussed are informed by interviews with people currently undertaking doctoral research in the creative arts, as well as substantial experience in directing practice-based research programmes.

1. Introduction

“We must learn to see more, to hear more, to feel more” [1]

In this quotation Susan Sontag is asking that we stop considering works of art by transforming them into equivalent sets of linguistic objects, that is, by looking for 'content' or descriptions of what they represent. She proposes instead that we focus more directly on the works as artefacts by, for example, looking at the visual elements or listening to the sounds in music. In her view, the interpretation of an artwork has no real role to play in enhancing our response to it. In fact she argues that interpretation obscures our responses. We agree that interpretation that creates an alternative content far distant from the artwork itself can distort our response to it but, nevertheless believe that there is value in the interpretative function. However, the notion of interpretation we will describe is of a rather different kind in that it is designed primarily to contribute to the making of art, rather than to inform audience experience.

An interpretation of an artwork is an alternative representation, a reading or a description of it relating to some particular framework. Interpretations are, by their nature, partial descriptions or representations that emphasis some elements at the expense of others. For example, an interpretation might describe the religious significance of a painting but not include reference to the way a range of colours is

used. Equally, there cannot only be one interpretation. Each interpretation is constructed in relation to a context or viewpoint, which we term a *framework* for interpretation. Practitioner frameworks are defined by whoever invents them (e.g. an artist) and the purpose they serve (e.g. to shape the developing artwork). The frameworks for interpretation we will discuss arise from an area of creative practice taking place in the context of practice-based PhD programmes. The view of interpretation presented in this paper draws upon our experience of research in the creative arts and interviews we conducted with practitioner researchers as well as articles written by practitioners during the course of their doctoral studies.

From a practitioner point of view, interpretation may take many different forms. When a practitioner carries out research in parallel with making works, the nature of the interpretation framework varies according to whether it is about content, such as exposing suffering in war, or about constructing the work, such as the rules of perspective. Indeed, in some practice-based PhDs, the practice and its outcomes sit beside a theoretical text that is not directly concerned with practice, and the two are seen together as research. Such theoretical texts can be concerned with some form of interpretation, of-course. It is not so uncommon for creative practitioners, such as artists, to write theoretical texts, interpretive or otherwise. Sometimes such texts do not refer to their artworks, or the process of making them, in any direct way. Thus, the parallel stream approach to practice-based research, where text and artwork are not directly connected, is easily recognized within an historical frame of practice. This paper, however, is concerned with a different stream and one that is particularly important to many practitioners working across a range of disciplines in the arts today. This stream of work rests upon the relationship between theory and practice and emphasises a close interrelationship and inter-dependency.

Creative practitioners engaged in doctoral research are concerned with the cyclical process of putting theoretical knowledge into practice and revising theory as a result of the outcomes. Theory and practice are intertwined in the development of their art. Research questions and issues come naturally from the practice and it is often a small step to articulate the context and methods associated with it. There is, in this context, a reflexive relationship between practice and theory and the kind of interpretation that arises from it plays an important role in the practice-based research process considered here. We will show that there is an important role for interpretation that directly informs practice. In the context of research, such as PhD studies, this provides a particular viewpoint from which the works are considered during the process of making and evaluating them.

2. Creative Practice

Most creative practitioners are primarily concerned with making works and with the intimately related acts of seeing, hearing and feeling. Rodchenko, for example, claimed that what differentiated the (visual) artist from others was “that we know how to see” [2]. Seeing is quite different to interpreting. Seeing is concerned with the actuality of the object whilst interpreting is concerned with its content or meaning. To quote again from the Sontag article mentioned above:

“Interpretation, based on the highly dubious theory that the work of art is composed of items of content, violates art.” and Interpretation “... makes art into an article for use, for arrangement into a mental scheme of categories.”

Our concern is with interpretation as used in creative practice and so, although a “mental scheme of categories” might be relevant, it is so only if it can be used to determine concrete issues relating to actual making of a work. We argue that in creative practice as research, there is a significant role for interpretation based upon frameworks constructed by researcher practitioners. This role is defined in the context of studies conducted in the service of art making, as exemplified below. In the examples we draw upon, practitioner researchers identify questions, criteria and issues that contribute to a *framework for interpretation*. These criteria relate to aspects of the artwork that are either material or have direct implication for material issues. The framework for interpretation is a tool in the art making process. Each artist, and even each work, has its own set of criteria within the practitioner’s framework. It is used, in part, to guide the practitioner’s *trajectory of practice and research*, the development path that is their long- term practice.

The context for this discussion is work undertaken at the Creativity and Cognition Studios (CCS) associated with a public museum where works in progress at different stages, from early prototype to near final product, are exhibited to the public and the audience experience evaluated by the artists. The facility, Beta_space was created in 2004 as part of the collaboration between CCS at the University of Technology Sydney and the Powerhouse Museum in the same city [3]. Beta_space replicates the main features of an interaction studio within CCS, which include a large back projected screen, a sound system, floor pads and other input devices connected to a computer system. A series of exhibitions of interactive artworks are mounted, where the works are technically finished but still in need of development in the light of audience interaction. The ability of the artists to view and assess their works in progress with real audiences is a practical possibility.

In interactive art, the artist is interested in seeing how the interactive elements work: by its very nature, this kind of artwork exists in relation to the audience. Interactive works invite the audience to engage through interaction and, in so doing, participate in the realization of the work itself. Experiencing art is driven by perception, where perception is an active and constructive process. Experiencing interactive artworks involves the same condition in addition to the active engagement with the work, which involves being in the space of the work, interacting with it and constructing an experience through this interaction. With an interactive art system the audience as well as the artist is engaged in a creative pursuit. Knowing how to see, in Rodchenko’s sense, is a particular skill in this context because it involves seeing how people interact with the work in practice in a ‘live’ (non studio) environment [4].

The Beta_space initiative is an example of an approach to making research a significant part of creative practice. In this case, it is based on the idea of a flexible exhibition space showing work at various stages of production, with exhibits lasting between one week and three months. This is a site for investigating experimental work-in progress, and for working in partnership with audiences. These collaborative experiments provide a view of the works under development that amounts to interpretation grounded in practice.

3. Practice and Research: Processes and Frameworks

This section discusses the way practitioner-researchers develop and apply frameworks for interpretation in the context of what we call ‘trajectories of practice and research’. The process of carrying out practice-based activities and the role of theory and interpretation is described first. This is followed by examples of the practitioner conceptual frameworks and physical works that comprise the outcomes of the trajectory of practice. The reflexive relationship between the frameworks and the works and how that impacts directly upon creative practice, is central to an understanding of interpretation as we characterise it here. The ideas discussed are informed by interviews with people currently undertaking doctoral research in the creative arts, as well as substantial experience in directing practice-based research programmes.

3.1 Trajectories of Practice and Research

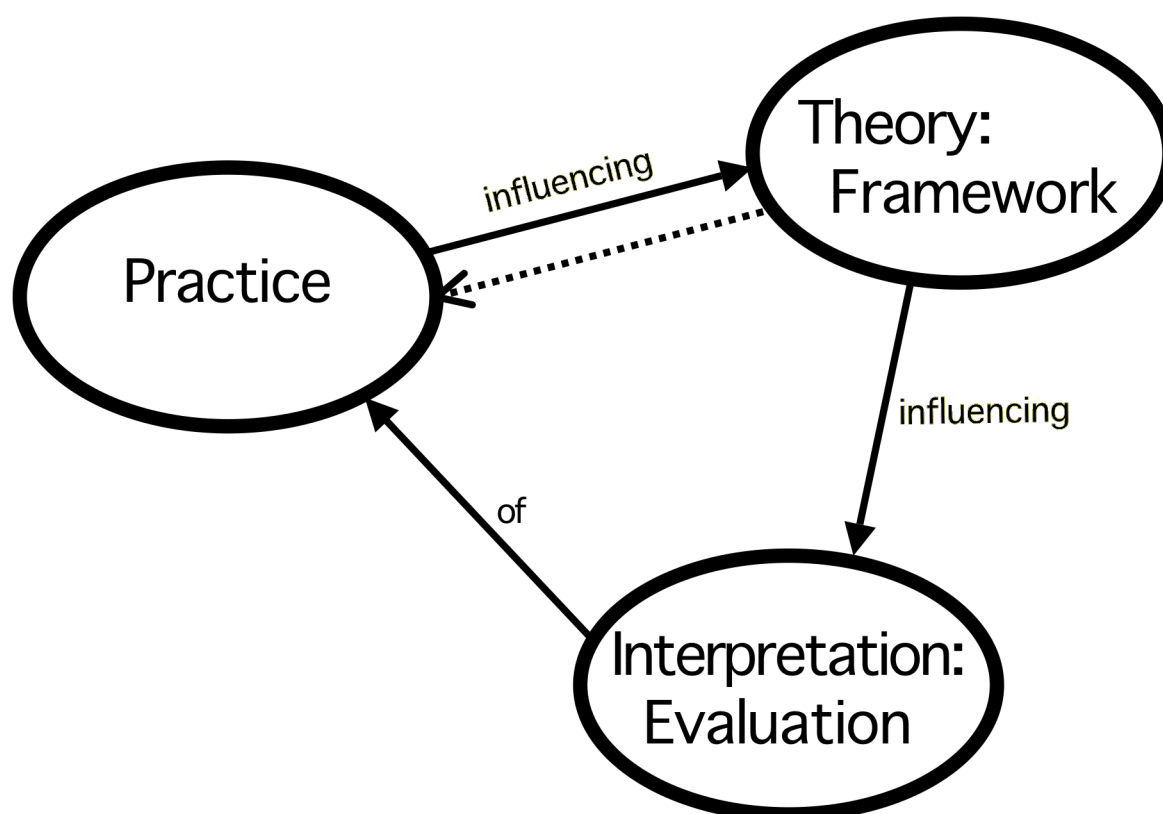


Figure 1: Trajectory of practice and research 1: practice influencing theory

In a ‘trajectory of practice and research’, there are three elements: practice, theory and interpretation. Each involves activities undertaken by the practitioner in the process of developing conceptual frameworks and making physical works. The trajectories of practice and theory can work in a number of different ways. In figure 1, we see a process that primarily consists of creative practice leading to the development or revision of theory in the form of a framework for interpretation, which is used in the evaluation of the results of practice. In figure two, on the other hand, the primary

process is one in which the framework influences practice and is revised following evaluation. In both cases the process is cyclical and there is often a tighter iterative sub-process in which the framework and practice develop together.

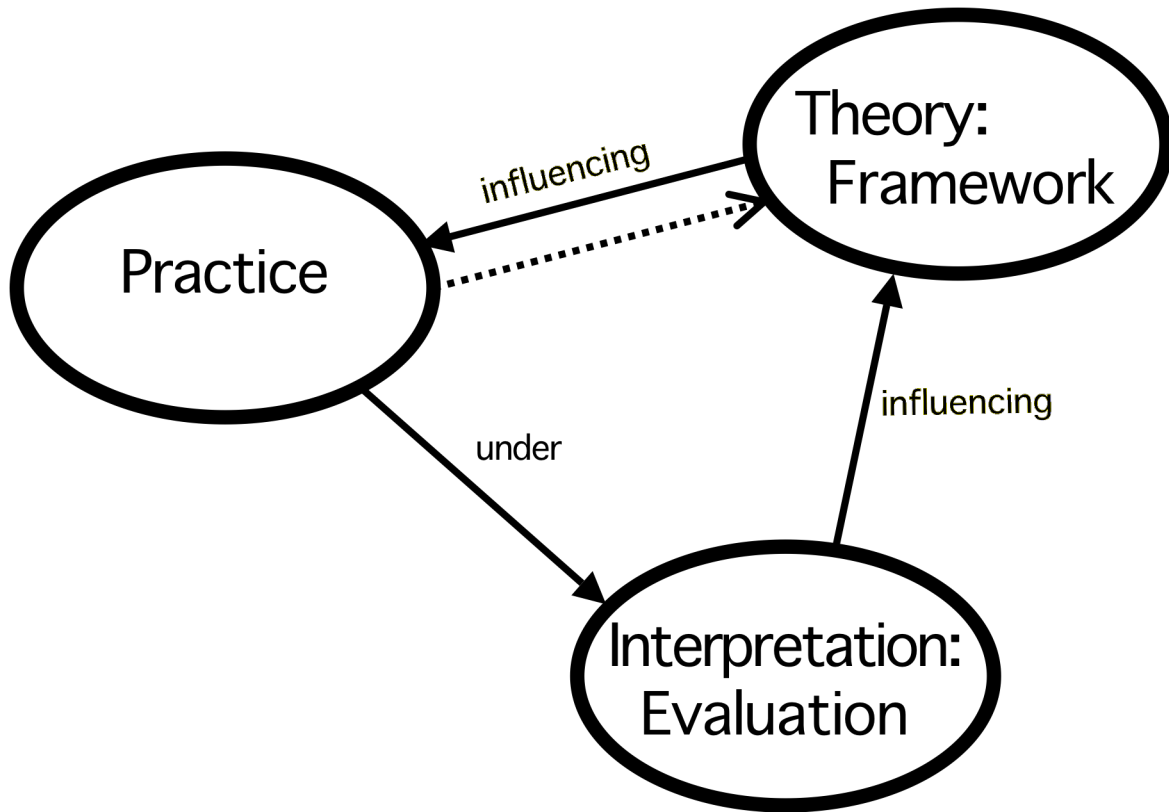


Figure 2: Trajectory of practice and research 2: theory influencing practice

The trajectory of practice and research, it is important to stress, whilst a time-ordered path, is far from a linear, step-wise set of activities that moves inexorably towards an intended goal. In reality, even under the time constraints of a research programme, the practice is interwoven with the other two elements: theory and evaluation. Sometimes the theory comes first but more often, the need for it emerges as the process continues. The role of theory and practice in creative arts research is relatively familiar but that of evaluation, as we characterise it, is perhaps less well known and can be seen as representing a novel approach in this field. That the context of the practitioner research under consideration is interdisciplinary to a high degree and across artistic, scientific and technological domains may be a relevant factor to note.

	Activities	Outcomes
Practice	create, exhibit, reflect	Works: consisting of physical artefacts, musical compositions, software systems, installations, exhibitions, collaborations
Theory	read, think, write, develop	Frameworks: comprising questions, criteria, issues
Interpretation	observe, record, analyse, reflect	Evaluation: findings leading to new/modified Works and Frameworks

Table 1: Trajectory Activities and Outcomes

Practice is the primary element in the trajectory providing as it does motivation for conducting research as well as generating the activities for creating and exhibiting tangible outcomes such as artworks, exhibitions, installations, musical compositions and creative software systems. In the nature of practice-based research, experiencing these works is usually necessary for a full understanding of the contribution that the practitioner is making to knowledge. For that reason, the role the works play in interpretation is vital.

Theory, as it is understood in the context of practice-based research, is likely to consist of different ways of examining, critiquing and applying areas of knowledge that are considered relevant to the individual's practice. If, for example, the practitioner seeks to create a software artefact that can be used in ways analogous with a conventional musical instrument, then being able to select and adapt relevant theoretical knowledge of the physical modelling of sound is a necessary role for such 'theory'. On the other hand, practitioner theory may consist of an untested opinion ('hypothesis') that the artwork can elicit certain emotions or qualities of experience in an audience or 'user'; this will remain a personal 'theory-in-action' until it is subject to a more rigorous form of study that involves investigation as to whether or not the opinion has any truth beyond an individual viewpoint.

Interpretation, in the role presented in this paper, involves the outcomes of observation, monitoring, recording, analysing and reflection as part of a semi-formal approach to generating understandings that go further than informal reflections on practice. An important difference is that the outcomes should, indeed for the PhD, *must*, be accessible to others. There is no prescribed standard set of procedures as in experimental science, but such evaluation studies are usually carried out using a variety of methods drawn from different disciplines. In the context of interactive arts, the fields of Human-Computer Interaction (HCI) and Ethnography, for example, are rich sources of inspiration and practical help.

For any artist, the outcomes of practice that are shown or performed as artworks must be significant. To the audience, they are the key objects of interest, of-course. To the artist, however, the artworks may often be seen as steps on a path or quasi-experiments in a bigger process. The other outcome that is important for creative practice is the framework, which is a living entity that can guide making, evaluating and interpreting. Practice, theory and evaluation all impinge upon the framework that may be developed, over long periods of time, in relation to extended series of artworks. We look at this in more detail in the next section.

3.2 Frameworks for Interpretation in Practice

A framework for interpretation in practice comprises a conceptual structure that is used to influence practice, inform theory and, in particular, shape evaluation. A framework may consist of many different things according to the individual practitioner's goals and intentions. In our experience, there are common ingredients and words: types, modes, qualities, categories, indices etc. may refer to similar concepts. At the same time, the methodologies that are developed will have an impact on the way the framework is applied and how it is altered in the light of experience. Some examples are:

- classifications for assessing the ways in which audiences respond to particular works.
- criteria for guiding the design of a new artefact or installation,
- questions, expressed as working hypotheses, to be explored using theoretical knowledge

In the examples provided below, practice-based projects in which interpretation in practice forms an integral part of the research are described. Each practitioner devises an individual framework that is used to guide the making of works and shape evaluation studies of audience experience and engagement with works.

Example 1

The first example, Andrew Johnston, is a practitioner researcher who is a musician and software developer. His process is encapsulated in trajectory 1. He has created ‘virtual instruments’ that allow musicians to ‘play’ using the sound of their familiar acoustic instruments. The instrument making process was in collaboration with a composer, Ben Marks, during which time they made explicit the criteria they were using for design by way of ‘reflective diaries’ in the form of web logs. The implicit criteria that emerged from this consciously documented reflective practice were used to guide the design so as to ensure that the instruments would be usable with a variety of conventional musical instruments and have attributes that were perceived as natural, consistent, interesting and motivating from a player’s point of view. The criteria were intended to help the practitioner achieve qualities in the instruments that would have particular effects upon the players. However, in order to achieve the desired effects, there was a need to explore and adapt theoretical knowledge, specifically in the physical modelling of sound. Setting criteria for achieving controllability as well as complexity, for example, raised questions about how the modelling should be applied.

Once the instruments were at a stage when they could be confidently handed over to other musicians, it was then possible to carry out an evaluation study. Armed with the criteria that had been used to guide the initial making process, the practitioner went on to study what happened when the instruments were played in real practice: were the initial criteria satisfied? What else happened that was unexpected and relevant to satisfying the criteria? From that study, new understandings emerged and the criteria were refined. More significantly, however, the study results as a whole proved to be a rich source of interpretation about the nature of performing with virtual instruments: three modes of interaction (instrumental, ornamental and conversational) were identified that provided further insight into how certain forms of desirable interaction could be achieved. The conversational mode of interaction was, from the practitioner’s point of view, the most interesting, but at the same time, posed the biggest challenge. Finding a balance between controllability and complexity is, he argued, a key issue in facilitating ‘conversational’ interaction [5].

From this example we can see how a practitioner framework for interpretation was made more focused and strengthened for future use in practice. First the practitioner criteria drove the design which, in turn, raised questions about the knowledge being used, which, in order to make progress, required further exploration of theoretical knowledge. The instruments were modified and then given to musicians to use under

observation and the design criteria were tested and modified where appropriate. Above all, a new conceptual structure for interpreting user interaction was derived.

Example 2

Another practitioner researcher, Jennifer Seevinck, a visual artist, is exploring how her artworks might stimulate emergent experience in audiences, i.e. the appearance (to the viewer) of new forms not explicit in the source work. Her process largely follows trajectory 2. To support that exploration, she first derived a set of categories of emergent properties for describing the compositions and shapes observed in audience interaction and evaluated her art systems that had been created with this intention in mind, in terms of how they stimulated emergent responses in audiences. The qualities of emergence were structured according to origin (e.g. perceptual and physical) and intrinsic and extrinsic structures (e.g. the emergent part changes or does not change the source). These categories were identified from research into existing theoretical knowledge that influenced the making of the artwork: in the artist's words,

“The theories of emergence were a strong influence on the design of the art work..”

The theoretical knowledge also informed the creation of the framework for interpretation of audience experience. By focusing on emergent properties, the artist sought to create opportunities for a more open interaction experience in which the user became a creative collaborator with the system. In this case, therefore, the framework both informs the art making process and also provides a means of interpreting the outcomes of observing audience response and behaviour [6].

Example 3

The third example comes from the domain of curatorial practice and, in the main, follows trajectory 2. Lizzie Muller has developed an “experiential” approach to the curating of interactive art. Theoretical knowledge drawn from the field of HCI was adapted for use in an artistic context and then tested in the context of two case studies of artists' developing and exhibiting their work in a public space. The development life cycle and the tools and methods used were evaluated using a “reflection-in-action” technique with a view to providing a model for other curators wishing to practice in this emerging field. The practice in this example, involved case studies of the collaboration between the curator practitioner and two artists, the results of the first of which fed into the second, thus, enabling the practitioner to refine her understanding. From the analysis of the case studies, a critical framework consisting of a set of qualities of audience experience was developed. This framework was used to interpret the nature of the interactive artworks under observation including the artist's response to the audience experience.

Drawing upon writings in contemporary culture, the critical framework was enlarged to embrace three principal themes (control, complexity and mirroring), which were used to shape a discussion of the effects of the particular interactive artworks on audiences. The outcome is a unique insight into a practitioner researcher's interpretative approach that combines a theoretical perspective with practice in curatorial experience. On a broader scale, this kind of practitioner interpretation ventures beyond providing a model of practice into a discussion of the role of interactive art and cultural change.

4. Conclusions

We have demonstrated how practitioner researchers use frameworks of interpretation to guide the trajectory of their practice and research. The frameworks enable creative practitioners to use their own criteria to help guide the development of the work in practice and to assess it against the same criteria. It is important to note that there is no universal or standard framework. Determining one is an integral part of the creative practice as well as the research. In fact, the trajectory followed is often one that involves modifying or extending the initial framework.

The field from which the examples are taken in the paper is that of interactive digital arts, which has its own special needs because the works produced only fully exist once the audience is engaged. As the examples in section 3 illustrate, a critical question for people making interactive works is how to understand the nature of creative engagement where the audience is an active participant in the manifestation of the work. In order to progress there is a need to develop individualised methods for evaluating audience experience and interpreting the nature of that experience in relation to the characteristics of the works themselves. Frameworks for interpretation are used to shape each evaluation study of audience experience. The projects are generally collaborative, involving human factors and technical experts as well as creative practitioners. For first hand accounts by the practitioners at CCS see articles in a special issue of CoDesign [8], an article by Bilda et al [9] and the forthcoming special issue of Design Studies [10] as well as information about current and past exhibitions at Beta_space [11].

Susan Sontag complains about the negative effects of interpretation. Her remarks can be understood in the context of an attempt to bring the audience closer to the artist in relation to artworks. She argues that interpretation, as an alternative representation, distracts from the creative artefact itself. We have shown, however, that a particular form of interpretation that addresses the intentions and needs of practitioners' can play an important part in the creative process. It seems reasonable to assume that this form of interpretation might also be valuable to audiences.

References

- [1] Susan Sontag, "Against Interpretation" in her *Against Interpretation and Other Essays*. Farrar, Strauss and Giroux, NY NY. 1966. 4-14.
- [2] Quoted in Selim O. Khan-Magomedov *Rodchenko: the Complete Works*. MIT Press, Cambridge MA. 1987.
- [3] Ernest Edmonds, Lizzie Muller, and Matthew Connell, "On Creative Engagement", *Visual Communication*. Vol 5 No.3. 2006. 307-322.

[4] Lizzie Muller, Ernest Edmonds, Matthew Connell, “Living Laboratories for Interactive Art”, Co-Design: International Journal of Co-Creation in Design and the Arts, Vol. 2, No. 4, 2006, pp 195-207.

[5] Andrew Johnston, Linda Candy, Ernest Edmonds, “Designing and Evaluating Virtual Musical Instruments: Facilitating Conversational User Interaction” Candy, L. and Costello, B. (eds) Interaction Design and Creative Practice, Design Studies Special Issue Vol. 29 issue 6 November, 2008, pp 556-571.

[6] Jennifer Seevinck, Ernest Edmonds “Emergence and the art system ‘plus minus now’”. In Candy, L. and Costello, B. (2008) Interaction Design and Creative Practice, Editorial Design Studies Special Issue Vol. 29 issue 6 November, pp 541-555.

[7] Brigid Costello, Lizzie Muller, Shigeki Amitani and Ernest Edmonds, “Understanding the Experience of Interactive Art: Iamascope in Beta_space”, Interactive Entertainment 2005, Creativity & Cognition Studios Press, University of Technology Sydney, Australia, 2005, pp. 49-56.

[8] Ernest Edmonds, “New directions in interactive art collaboration”, Co-Design: International Journal of Co Creation in Design and the Arts, Vol. 2 Issue 4. 2006.

[9] Zafer Bilda, Linda Candy and Ernest Edmonds, “An embodied cognition framework for interactive experience. Co-Design: International Journal of Co Creation in Design and the Arts, Volume 3, Issue 2 June, 2007, pp 123 – 137.

[10] Linda Candy and Brigid Costello, “Interaction Design and Creative Practice”, Editorial, Design Studies Special Issue on Interaction Design, Volume 29, Issue 6, November 2008, pp 521-524.

[11] Beta_space What’s on: <http://www.creativityandcognition.com/betaspace/> and <http://www.powerhousemuseum.com/whatson/betaspace.asp> accessed October 1st 2008.