Ask the Audience

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This paper results from a research project run in partnership between the Phoenix Digital Media Centre Leicester and the Institute of Creative Technologies at De Montfort University, Leicester. In 2011 Phoenix secured major Arts Council funding for a programme of exhibitions of digital artwork. The organisation recognised how digital technologies offer new ways of engaging with and producing art and wanted to break down barriers to digital arts work, exploring how technology can bring new people to art as either practitioners, observers or both. A need was felt to understand how people interact with and understand digital artwork and so a research project was developed in partnership between the gallery space and the university that would evaluate the audience's engagement with and experience of the digital arts work they saw at the Phoenix. This research focused on a number of exhibitions which were part of the Phoenix's digital art programme in 2014–2015 including group exhibitions, solo shows, visual art, sonic art, installation work and work for families and young people. Asking questions about Curatorial Design, The Artwork and The Experience, the main objectives of the research were to understand how audiences engage with the digital artwork and how the exhibited artworks appealed to different audiences, using these results to help the gallery and exhibiting artists reflect on how audience engagement with and experience of digital arts work may affect future work. This paper discusses the findings of this research in relation to the audience engagement and understanding of digital art in gallery setting as well as covering the development of the evaluation process between gallery, artist and researchers. This paper will be of interest to both practitioners and curators of digital art who are looking for ways to obtain a deeper understanding of their audience's engagement with and experience of their work.

Digital art. Audience engagement. Evaluation. Interaction. Agency.

1. INTRODUCTION

Set in the heart of Leicester's Cultural Quarter, Phoenix is an independent cinema, digital arts centre and cafe bar. A charitable organisation, Phoenix aims to bring inspirational film and art to all and curates a digital art programme including exhibitions, talks and events taking place in the Cube gallery, across Phoenix and beyond. Phoenix is committed to providing high quality digital arts experiences for all and to establish and evaluate audience experiences of its Digital Arts Programme, a research project was run in partnership with the Institute of Creative Technologies at De Montfort University, Leicester. The research was an important way for Phoenix to learn more about its audiences and their experiences, and would be used to inform and develop future programming.

The main objectives of the research were to understand how audiences engage with artwork, to understand how exhibited artwork appeals to

different audiences that visit the Phoenix, to identify how this knowledge might affect the Phoenix Digital Art Programme, to develop an audience for Digital Artwork, to explore the perception of the main Cube gallery for each exhibition, and spaces (physical and online) that are connected to it, to develop artists' awareness of the audience and exhibition context and to support funding applications based on this knowledge.

2. METHODOLOGY

A methodology was devised that would obtain in-depth feedback from exhibition visitors. The first stage was to work with the Phoenix to establish what they wanted to find out from the visitors to exhibitions in the digital arts gallery space The Cube, before working these ideas into understandable, open questions that the participants would be asked. Following this, research assistants were trained over a number of days to familiarise themselves with the questions

and the practicalities of supporting participants through the interview process including both technical and interpersonal skills. Participants would visit the exhibitions and take part in the evaluation through a one-to-one discussion with the researchers. Finally the interviews would be transcribed and analysed through a thematic analysis.

Participants were required to take part in 4 different types of information gathering:

(i) Profile Information and Agreement

Each participant was asked to complete and sign a participant agreement form. This outlined the research project, established demographic information and the level of experience within the digital arts field. Ethical approval was obtained from De Montfort University.

(ii) Semi-structured Interview

This involved participants discussing their interactions with the researcher. Questions aimed to draw out information about the quality of experience and diversity of the audience. To obtain the best quality response from the participant, open questions were developed that would ask the respondent to think and reflect, giving opinions and feelings. This approach handed control of the conversation to the respondent whilst enabling the researcher to steer the participant's focus.

(iii) Video-Cued Recall

This involved participants being filmed engaging with the work and then discussing their interactions with the researcher whilst watching the film.

(iv) Survey

A survey-type questionnaire was provided at the very end of the session, to find out what the participants thought of the whole experience of being videoed and interviewed. It was also used to collect any general thoughts about the exhibition as a whole.

3. THE EVALUATION PROCESS

Participants were invited to take part in the research through the Phoenix's website and mailing lists. The Phoenix is also an independent cinema, so many visitors are filmgoers rather than frequent gallery visitors. Often, it is difficult to find audience who will commit to an in-depth evaluation process and to counter this the project devised an effective way of attracting participants. As an incentive to participate, Phoenix offered free tea, coffee and cake during the activity at the Phoenix cafe and a pair of cinema tickets to a film of choice. This generous offer meant that the project was over-subscribed for participants, with places being filled within 15 minutes of being advertised. 26 participants were chosen, on a first-come-first served basis, for each exhibition.

At the start of each evaluation session, participants were provided with a participant agreement form, providing information about the research and asking them to provide information about themselves. Participants were then asked to view the artwork in the exhibition and be video recorded while doing so before taking part in a short informal interview to establish their feelings about their whole experience of visiting the exhibition and taking part in the research. This was followed by a video-cued recall – a review of the recording with one of the researchers. The whole activity lasted no more than 1 hour. The participants questionnaire covered 5 main aspects of participant experience; The Display and Curatorial Design, The Artwork, The Experience, Expectations and Developing Practice.

4. THE EXHIBITIONS

Evaluations were carried out of two exhibitions of digital artwork – *Frequencies A* by Nicholas Bernier and *Site Exploration*, an exhibition of different work by a number of artists.

Site Exploration was a group exhibition looking at the way artists use technology to explore our relationship with the environment and the natural physical world. The exhibition ran during 10–28 February 2014. The exhibition information reflected:

> From the earliest maps to our increasing reliance on Sat Navs and Smartphone GPS, how we perceive the world around us is heavily influenced by the technology and media we use to navigate and understand it. In parallel, many artists are using new technologies and the huge array of data we produce about our surroundings to imagine environments that normally lie beyond our realm of experience.
> (*Site Exploration*, Phoenix Website)

The exhibition showed five pieces of work by five artists; *Subterranean (Seismic Blues)* by Semiconductor (2012), Marina Zurkow's *Mesocosm (Northumberland, UK)* (2011), *Metrography* by Benedikt Groß & Bertrand Clerc (2012), Eric Rosoman's *GPS Ducks* and *The Quarry* by Charles Danby and Rob Smith (2014).

Subterranean (Seismic Blues) is a sound work of seismic data made audible. Several types of seismic data (earthquake, volcanic and glacial) are translated into sound, each section having *"distinct characteristics which can be associated with processes involved in the seismic propagation"*. By making this data audible, the listener is *"able to perceive subterranean movements which normally lie beyond our realm of experience… encouraging us to imagine the mechanisms producing these epic sounds."* (semiconductorfilms.com).

Marina Zurkow's *Mesocosm* is an algorithmic animation, representing the passage of time on the moors of Northeast England. The animation develops and changes over time in response to software-driven data inputs. One hour of world time elapses in each minute of screen time, so that one year lasts 146 hours. Elements in the piece recombine perpetually and each cycle is different, as the behaviour of the characters, landscape and weather are determined by a code using a simple probability equation.

In *Metrography*, interactive designers Bertrand Clerc and Benedikt Groß explore how as abstracted projections of the real world maps distort our surroundings, (http://www.phoenix.org.uk/event/site-exploration/) placing the topology of London to a rationalised map designed by Harry Beck (*Site Exploration*, Phoenix Website).

Eric Rosoman's piece is a response to the accidental release of 29,000 rubber ducks from a container ship in 1992, which resulted in a greater understanding of ocean currents. In *GPS Ducks*, rubber ducks were fitted with GPS trackers and released into waterways across the East Midlands, mapping a route from river to sea.

The Quarry by Charles Danby and Rob Smith explores the site of Robert Smithson's artwork *Chalk Mirror Displacement*. For the Phoenix exhibition the installation took the form of images and objects from the site of the quarry, including a series triangulated three part photographs, folded and internally mirrored. By scanning the mirrored QR Code with your smartphone, visitors can experience associated video works.

These two exhibitions showed a range of digital artwork, including animation, video, sound, digital prints and location-based work. None of this digital art was interactive.

The Canadian artist Nicholas Bernier's piece *Frequencies (A)* (2012) was shown during 13–22 March 2014. An installation of sound and light, "*the artwork merges the piercing hum of mechanically triggered tuning forks with pure digital*

soundwaves." Computer-based sequences activate solenoids that hit the tuning forks and "*streams of light burst in harmony with the forks, alternatively illuminating the exhibition in stark white light and plunging it into complete darkness".* (*Nicolas Bernier – Frequencies (A),* Phoenix Website) *Frequencies (A)* was winner of the prestigious Golden Nica prize at Ars Electronica 2013.

5. FINDINGS

The personal information provided by the participants showed that none of the participants regarded themselves as having lots of experience of digital arts work. 50% of Participants described themselves as having little experience of digital artwork and 50% described themselves as having some experience of digital artwork. Three-quarters of participants were between 40-59 years old. Many participants were surprised with the variety of digital artwork shown, especially the physicality of the *Frequencies (A)* and *The Quarry*, having expectations that digital artwork is screen-based. As Participant 1 reflected, "*I expected that somebody had made something on the computer and they'd used one of the many projectors in there just to project it against the wall".*

5.1 Interactivity is Assumed

Many of the visitors expected the work to be interactive and often this led to some confusion about how to engage with the artworks. Referring *Frequencies (A)*, Participant 2 commented:

> [I felt] a little bit wary, I wasn't quite sure what to expect. I wasn't sure how the display was going to pan out… or thing you might be able to touch. I wasn't sure about what I could and couldn't do within the space.

Interestingly this confusion was evident across both exhibitions, visitors trying to find pressure pads to interact with different sonic elements first in the *Site Exploration* exhibition:

> Because we're also dealing with a soundscape going on I was curious as to whether there were pressure pads, or something perhaps where you stand someplace to get further experience. (Participant 3)

and also in *Frequencies (A)*:

> I wondered it I was allowed to walk around… I didn't know if I was supposed to stay in a certain place. My first though was it was activated by the floor. Because every time I seemed to take a stop there seemed to be a different noise and a different light going off and then when I stayed still nothing happened. I realised later that it was just coincidence but I was glad no-one was in there at that point,

because I was doing stuff with my feet to trigger [it]. (Participant 4)

A comment from one participant points towards this expectation coming from visitors' use of interactive technologies outside the gallery space:

The ducks – I assumed that would be interactive and I did try to zoom in and what have you… because it's GPS, so normally you go on Google Maps and you interact with it and whatever… (Participant 4)

In *New Media in the White Cube,* Christiane Paul asserts that the digital spectacle offered by the entertainment industry (and perhaps I suggest also the communication industry) is not matched in new media art, often leaving digital practice looking like the poor relation. Christiane commenting how *"Art resides in the realm of sculpture and painting; new media needs to entertain"* (2008, p72).

5.2 Technology is Interesting

Christiane Paul (2008) describes how for digital artists, technology is a medium like paint or clay and the technology becomes a vehicle for the artistic content. However, for gallery visitors unfamiliar with the technology it becomes the focus of attention, sometimes unintended by the artist (p67). Participant 5, referring to *Frequencies (A)* commented,

I was interested in how it was working… what I was drawn to was what is going on… with the sound and the lights and the technology and the electricity, that was interesting to me because I couldn't work it out… which was a bit annoying because I wanted to know… it puzzled me…

The visitors' interest in the technology and the relationships between the technical and aesthetic elements of the exhibit enabled them to engage with the artwork on an active level.

…at first I was interested in the look of it… I was interested in my reaction to it. I liked how it looked and I could hear all this noise initially, and it was only after that that I began to separate it out into the pattern of the lights and the pattern of the noise… And I found that process quite interesting. (Participant 6)

Many of the visitors to the two exhibitions described how they were engaged by the relationship between the technical aspects of the interface and the more aesthetic concerns of the artwork. Participants 7 reflected on their engagement with *Frequencies (A)*:

…it kept you on your toes, because you're looking at one bit and then suddenly the other end of the table lit up, your head goes that way, and then another on comes on at the other end.

And I wasn't sure whether some of it was generated by movement as well, whether there were any pressure pads or anything like that… but I think it was just going through its sequence.

Participant 8 described a similar engagement:

I spent a lot of time trying to work out which part of the display was making which sound, it made you think and try and work things out and visually they looked like little robots I thought and they also made me think of hand bells… I was trying to work out whether the length of the things made the different sound…

In *Digital* Encounters, Aylish Wood describes how by drawing together the different elements of a digital art work – sound, image and light for example, viewers are able to shift their attention between the meaning of the artwork and it's technology, reflecting "installations are human-technology interfaces whose aspects point as much towards the technology as they do towards the aesthetics of the artwork" (2007, p156). Through this process, visitors are able to find their own way to connect with the artist and their original intention, Participant 8, reflecting on their engagement with *Frequencies (A)* commented;

It made me think a lot… and I wanted to ask questions… how it worked, you know, on the technical side, did those lengths of tubes make a different, was that important or not?

Participant 9 also questioned the artist's intention through engaging with the technological aspects of *Metrography:*

I was trying to work out what the artist was trying to say and whether they'd jimmied around with the map, because it wasn't how I remembered it, so obviously it was altered but I was trying to figure out how it was altered…

Wood proposes that the combination of elements often found within one digital artwork, offer viewers increased agency:

If competing elements are able to distribute a viewer's attention, they create the opportunity for choices in viewing which in turn engenders agency. Agency emerges as viewers, in addition to their acts of interpretation, orient their perceptual apparatus to decide which competing element they attend to and which they set aside. (2007, p5)

According to Wood, viewers gain agency as they draw together the different elements, to interpret the whole artwork (p11).

5.3 Visitors Enjoy Constructing Meaning

Whilst the majority of visitor described themselves as having little or no experience with digital art, most enjoyed both the process and challenge of drawing meaning from the artworks. Participant 10 reflected on the overall experience:

> *I think digital art stuff is interesting, but it feels quite alien to me, I have to work at it… It's about challenge isn't it, the challenge of what you think.*

Many visitors constructed a personal meaning through individual associations with the work. Participant 11 spoke at length about her connection with *Mesocosm*:

> *I think it reminded me of, you know, the floods what we'd recently had because I was thinking like how cold… it was portraying it like it was very cold there, you know the snow and that. I was thinking about the floods and I thought… even when it's freezing and cold you've got nature… you've got the birds coming through still and the animals. Then there was something recently in the paper about the horses at Fosse Park that had been abandoned and think about when its stark like that, and yet it was nice with the birds flying around, it's like mmm… I was thinking 'ooh it's spring, spring is around the corner'.*

Another participant drew parallels between *Mesocosm* and what she regarded as a similar work from popular culture that was meaningful for her:

> *… if you were going to ask me to pick my favourite then I'd say the figure on the seat, I quite enjoyed that and I would have liked to spend a bit more time looking at how the time passes, because I've been watching Pharrell Williams' Happy 24h video which is obviously in real-time, so it kind of links into that, the fact that this is the whole cycle of – was is a year?* (Participant 9).

Visitors articulated the importance of these personal connections in engaging with digital artwork, reflecting:

> *… it allows you the space… people go in and see something completely different to me and experience it differently and that is of course true of a play for a book but essentially there is just more space for you to… find your own reasons for liking it…* (Participant 12)

and

> *… it certainly engaged the mind... you are always trying to make sense of an art work, whether it is visual or otherwise you try and input some of what you already know about the world onto it and try to make sense of it..* (Participant 8)

In *Digital Encounters*, Woods describes how viewers are made aware of *"the partiality of their perception"* (p11) through the competing elements of the digital artworks, developing agency as they construct personal meaning:

> …time-based installations constructed around competing elements operate by distributing attention, requiring viewers or gamers to enact a choice-making process through which they can synthesise a meaning from the interplay of sounds and images, one upon which they can then build an interpretation with its own attendant agencies and identifications. (p137)

5.4 Digital Art Offers a New Experience

Whilst the majority of participants had little or no experience in digital art, many were frequent visitors to more traditional art exhibitions both at local, regional and national galleries. However, they found visiting the digital art gallery as a very different experience, describing it as *much more engaging…* (Participant 12)*.* Participant 13 remarked:

> *… it's quite engaging, and it does draw you in. It's not like a museum or something like that where you can just go and stand in front of a lot of pictures. The fact that you can see stuff, you can hear stuff, and something's happening. I guess it's quite active and you do feel like you're involved in a way.*

The level of active engagement with the artwork was key to this different experience. Participant 4 reflected:

> *It was more fun [than other exhibitions]. I was trying to work it out… I think what really got me about it was that it demanded my attention. You go to other art galleries and it doesn't demand your attention. It's what you put into it, like you can stand and look at a painting and something might speak to you about it and… you wonder around, go to the gift shop… But this one you could not take your focus off it… and yet I really liked that… I was totally intrigued thinking about very little else apart from what was in front of me… it completely arrested my attention and expectation really. I was utterly gripped by it. Completely.*

One participant felt that engaging with the digital artwork had provided her with skills in engaging with art more widely:

> *I'll be more observant when I see pictures now and I'll try and think what's behind them… look at something and think 'what's behind that?' instead of just thinking 'that's a nice colour' and 'that looks pretty'. (Jill)*

6. CONCLUSIONS

This research project has led to a number of conclusions relating to visitors' experience of and engagement with digital art work in a gallery setting. Visitors expect work to be interactive in nature, but are not disengaged when it is not. Visitors are interested in the technology and the relationship between the interface and the aesthetic content of the work. Rather than being an unconfident audience, visitors enjoy the freedom to construct their own meaning from the work. Actively synthesising different aspects of the work and combining these with personal associations, gives the visitors a high degree of agency.

The artists' intention is not really key to the visitors' experience of the work. Rather, the visitors focus on the technical infrastructure and it is through the questions this raises that they experience and understand the work. For the artist, the technological infrastructure enables them to make the work. For the audience, the technological infrastructure enables them to engage with the work.

In 1973, Cornock and Edmonds developed a number of categories of interaction in arts, elaborated on and brought up to date by Connell, Edmonds and Muller in 2006. They propose 4 different categories of interaction; static, dynamic-passive, dynamic-interactive and dynamic-interactive (varying) (2206, pp. 310-11). The first 2 categories relate to art where the audience does not have an active role in influencing changes in the artwork. In the Static category, *"The art object does not change and is viewed by a person"* (p.310). In the Dynamic-Passive *"The art object has an internal mechanism that enables it to change or it may be modified by an external factor… The viewer is a passive observer of this activity…"* (p. 310). I would suggest that although the work experienced by the participants in this research project was not interactive, to define their interaction as passive negates the huge amount of active engagement and agency that they have demonstrated. For this reason, this research has led me to I would like to propose another category – dynamic-active – to reflect their agency and embodied understanding of the work. As Oddey and White reflect in *Modes of Spectating*:

> … spectatorship is no longer passive… and where sensory pleasures of spectating are sought, we must recognise the progress of technologies and their interfaces as imaginative and playful devices for engagement. (2009, p11)

7. REFERENCES

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