

Scenario Design for Embodied Digital Experiences

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Abstract

This artist talk reflects on artistic insights gained through artistic process, user trials and presentation of dance works created for virtual reality and augmented reality. I will describe the practice and process of creating choreographic works for virtual and augmented reality as scenario design for embodied digital experiences, within the context of an expanded view of dance. Research and practice are developed through observations and feedback that clarify the central role of participatory experience and social engagement in designing the user experience. Challenges in working with embodied digital experiences include presentation, form and context will be discussed in hand with success in motivating creativity and mobility. Current works, Spheres; a Dance for Virtual Reality and Glasshouse be referenced and Evocation will be discussed and demonstrated. [1] [2] [3]

Keywords

Speculative Practice, Collaborative Approaches, Participatory Art, Embodied Experiences

Introduction

This artist talk reflects on recent shifts in my choreographic practice from creating works for the stage to activating embodied experiences in immersive and augmented digital environments. I will discuss insights gained during the process of realigning knowledge from dance with digital applications - virtual reality and augmented reality.

I will reflect on process and practice as well as observations and insights gained through trials and presentations. Insights shared will bring to light the importance of participatory experience and social engagement between the user and the public. Challenges to discuss include presentation context, time-based expectations, and social codes and practices across experiences and disciplines. Positive observations include – motivating creativity and mobility.

Background

I am a contemporary dance choreographer experienced in collaborating with artist with specialist skills and knowledge working with bespoke technological applications that promote interactivity in dance performance. My role as the choreographer in each project is to instigate creative processes that extend each artist outside their discipline, activate innovative practice and economise work-

flow. My practice is based around questions of embodiment, creativity and dance and these areas of interest are central in each project. Throughout my practice, I aim to provide affordances for participant agency and improvisational possibilities for performers. I am also interested in how contemporary life informs personal movement choices and expression and how contemporary dance is evolving to reflect new movement vocabularies.

In 2022 I graduated from a co-tutelle PhD between Coventry University and Deakin University in dance digitization. The focus of my research encompassed points of correspondence between the fields of Dance for Virtual Reality, Simulation and Experiential Futures. Each of these concepts and practices were studied with a choreographic interest in embodied practice and design. Insights from the doctorate research informed my artistic practice and assisted me to shift my work into choreographing for immersive digital environments – virtual and augmented reality.

The first work was Spheres; a Dance for Virtual Reality, created as a show piece for the Adelaide College of Arts Graduating year. The second work Glasshouse was developed through a year-long Arts Fellowship from Arts South Australia and the third work Evocation was developed with the aim of working specifically with augmented reality. Each application was designed to motivate the participant to move and to enjoy dance and creativity through interaction and creative expression.

Evocation

Evocation is an augmented reality dance work whereby proximity to an avatar embedded in a public site summons the spectra of a dancer illuminated through an android tablet or oculus quest headset. The participant is encouraged to catch all the aspects of the avatar's dance by moving around the space in response to visual cues that enhance the site and motivate the participant to put the performance together. The participant's engagement with the digital dance and the site is choreographed by exciting their creativity and motivating them to complete a task in situ. The dancing avatars in the space respond to their embodied somatic response to their worlds – urban, cyber-physical and organic. The participant wanders around a space looking for avatars and a line of poetry composed as a reflection of contemporary anxieties in relation to deep time and future anticipation.

Process Evocation was created with dance material collected through a reiteration of creative processes working

with motion capture technology. This creative team worked together on previous process creating Glasshouse. There was choreographic material captured in motion capture that we wished to re-use and /or redevelop for Evocation. Dancers were paid for the secondary use of the choreographic material transferred from one project to another to demonstrate best practice around intellectual property, respect for past work and to practice resourcefulness and recycling within digital arts processes.

Glasshouse is a virtual reality application with three worlds based on the embodiment of insects, plants and the physical processes connected to human nurturing, communicating and symbiotic tasks – set in a speculative future world. When developing Evocation, the movements from Glasshouse were re-matched to skills of future beings/ avatars designed to appear liberated from human identity. Choreographic material interpreted the relationship of the contemporary body socialised to nature, urban environments and work-place tasks both cyber-physical and organic was further developed and captured. These movements were derived from a physical response of the body in nature – both organic and non-organic allowed us to re-assess the evolution of movement in situ within this world and future speculative environments. The accompanying poetry gives expression to our hopes and fears about such relationships.

Evocation

Machine Learning Love (may my code work - please - may my machine fall in love).

Restore from Back-Up Failed (may my restore succeed)

Garden of Endless Ice (may the earth still provide)

Scratching Deep Earth (may the elements transform)

Dancing Weather (may my movement prevail)

User studies for Evocation were conducted at MOD (Museum of Discovery – University of South Australia) and the work was previewed at Liverpool Gallery University of South Australia for documentation purposes. Unstructured interviews and participant observations provided feedback to questions about the relationship of the participant to the avatar and the relationship of the participant and avatar to

References

- [1] Neville Sarah, Wilson James, Malani Daish, Thomas Matthew. 2019. Spheres; A Dance for Virtual Reality. Adelaide College of Arts.
- [2] Neville Sarah, De Garis Alex, Malani Daish, Hawksley Sue, Thomas Matthew. 2021. Glasshouse. ANAT SPECTRA, MOD.
- [3] Neville Sarah, De Garis Alex, Malani Daish, Hawksley Sue, Thomas Matthew. 2021. Evocation. MOD.

the environment. These questions build on ongoing questions emerging from the suite of dance for virtual and augmented reality works concerning engagement and context.

Insights

Insights focus on participatory experience and social engagement between the user and the public. Virtual reality and augmented reality dance works prioritise the participants embodied experience and creative process is designed to structure simulations that trial variables and potential modes of engagement. Relationships between avatars, digital entities, the participant and the environmental are analysed. These observations will be discussed in the artist talk.

Challenges to discuss include presentation context, time-based expectations, and social codes and practices across experiences and disciplines. Embodied digital experiences are designed to leverage visual dominance to prioritise somatic response. The context and framing of the presentation of virtual reality and augmented reality for dance needs further consideration. Positive observations include – the participant's engagement in creative tasks as well as extension and enjoyment in moving and dancing.

Summary

This artist talk will introduce my work in dance for immersive digital environments. I share my process and practice and discuss areas of further research and development.

Acknowledgements

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Author Biography

Dr Sarah Neville is an Australian choreographer and scenario designer who devises new media performance, instigates inter-disciplinary practices and invests in multi-platform processes and production outcomes. In 2021 Sarah was awarded an Arts SA Fellowship to create dance for virtual reality experiences. In 2022, Sarah received a PhD from Deakin University/ Coventry University researching embodied participation in immersive digital environments. In 2023 Sarah presented Evocation AR trials at Liverpool Gallery and MOD, Transmittance at The Mill for Illuminate Festival and Glasshouse at MOD for SALA Festival. Sarah is currently a research associate at UniSA Creative/ IVE.