Creating dream.Medusa to Encourage Dialogue in Performance

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Abstract. In a lucid dream, a dreamer becomes conscious that she can interact with and control events in the dream environment. Using gestural control devices and responsive video visualization of vocal interaction, our interactive performance, *dream.Medusa*, invites four participants selected from the observing audience to experience a simulated lucid dream. The participatory nature of the *dream.Medusa* performance facilitates a dialogical exchange between performer and participants in order to collaboratively create an aesthetic experience.

1 Introduction

Technologically mediated performance practice allows performing artists to create interfaces that augment their voices [3] [7], and movements [1] [5], with responsive audio-visual content. "New media" performance often mixes traditional artforms such as music or dance with digital content, using modern interactive technology to allow an expertly rehearsed creative team of performers and technical staff to control and manipulate responsive multimedia elements.

Participatory performance systems, such as Sheridan's iPoi [4] or Winkler's Light Around the Edges installation [9] add an additional layer of interactivity to multimedia performance. Facilitating audience involvement, these works allow participating audience members' behaviours to modify and manipulate the development of the ongoing interaction allows audience members to experience performances in new and exciting ways – not only as passive spectators, but as active co-creators and collaborators, shaping and developing the performance itself.

2 The *dream.Medusa* Performance

Originally created as part of an installation exploring the stages of sleep and dreaming, our interactive work, *dream.Medusa*, is a participatory performance

which allows four audience members to share in the creation of an audio-visual experience which is meant to evoke the qualities of a lucid dream [8]. The staging environment and multimedia content is designed to be hypnotic and immersive. Ethereal music, vivid imagery (videos of jellyfish moving rhythmically through water) and a performance space draped in soft and welcoming fabrics are intended to transport participants to a dreamlike state. As in a lucid dream, participants drift in and out of control of their surroundings, at times being able to enact change in their environment.

The four participants are selected from the audience, having no previous experience with the interface. Each participant controls an independent aspect of a real-time video editing system which they interact with by manipulating deliberately mysterious controller objects containing Nintendo Wiimotes. A live singer (Taylor) affects the video playback using a visualization routine which maps vocal timbre to colour, modifying the colours of the videos. The participants are instructed to explore the interaction space, learning how their actions affect the visualization over the course of the performance. Collectively, the group's interactions with the responsive environment and one another choreograph the visual component of the performance.

3   Dialogue in Performance

From an artistic standpoint, using technology to allow participants to contribute to the ongoing development of a live performance in a concrete and tangible way is intriguing. From my[3] experience and background as a performing musician, I felt that adding a participatory component to my artistic practice would enable me to explore the creative connection between performer and audience in a unique manner.

I began my career in the performing arts in a very traditional way. I spent many years studying and working as a singer, eventually choosing to specialize in jazz and cabaret music. I felt that these genres gave me opportunity to engage in improvisation and spontaneous expressivity. I enjoyed the close collaboration between myself and my fellow musicians, as well as the ability to observe and react to the feedback given by an intimate audience.

I began to feel that the most critical aspect of my role as performer was my ability to engage my fellow musicians and my audience in a dialogical process – each performance was uniquely shaped by the momentary experience of singing that particular piece, with that particular group of musicians, in that particular location in front of the individuals that formed that particular audience at that particular time. Each performance was dependent not only upon the way I used my voice to communicate via music, but as well by the way the audience received that communication and responded in turn via their energy and attentiveness.

Wright *et. al* address this property of aesthetic experience, stating that "self and others, technology and setting are creatively constructed as multiple centres

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[3] Here "I" and "me" refer to Robyn Taylor

of value, emotions and feelings and the experience is completed simultaneously by self and others, not determined solely by one or the other." [10], p.7. As a musician, I feel that the most valid moments in performance occur when this relationship between performer and audience is fully actualized, enabling the artist to connect with her observers and share emotions in an authentic way. In these moments, the very room feels alive, and the sense of complete absorption in the creative experience is palpable.

4   Dialogue in *dream.Medusa*

Technologically mediated participatory performance, as well as being interesting due to its potential for engaging participants in a form of creative play and ludic activity [2] can be argued to be a literal interpretation of this dialogue between a performer and her audience. The performer communicates via the tools of their artistic craft, while the participants are afforded the opportunity to communicate in response via the controller interface. Ideally, the emerging dialogue between performer and participants could evolve in an improvisational fashion, allowing the collaborative team to react and play off one another much as jazz musicans 'jam'.

By giving several audience members the ability to literally co-create the performance content in *dream.Medusa*, we hoped to enhance this interplay between performer and audience in order to better illustrate and explore how the experience is shaped by their relationship. As well, we hoped that giving the participants direct influence on the performance's development would increase their level of engagement and commitment to the performance process.

During a performance of *dream.Medusa*, dialogues emerge between the four participants as well as between each participant and myself. The participants and I sit closely together, well within view of one another. We can interact via gesture, eye contact, or even whispers during the development of the performance. As the performer, I am highly attuned to the behaviours of my participants. I attempt to respond to their manipulations of the video, and adjust my vocalization in reaction to their creative contributions as I would if they were fellow musicians. Participants can choose to coordinate their interactions with myself or with one another to create intentionally multi-faceted effects, or they can choose to act in isolation. The action we take together shapes the character of the performance. The collaborative medium gives untrained, novice participants the opportunity to step beyond their role as audience members, and more clearly illustrates how a performance is dependent upon a multitude of small contributions.

It is our goal that the dialogues which develop during *dream.Medusa* will enrich the participants' investment in the performance. We hope that the ability to explicitly contribute and collaborate during the course of the performance's development increases the participants' level of engagement, creative agency, and sense of ownership of the aesthetic experience. We are now using *dream.Medusa* to form part of a larger body of research investigating participants' perception of their experiences enacting collaborative performances in public spaces [6].

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5 Acknowledgements

References

1. A. Camurri, P. Coletta, M. Ricchetti, and G. Volpe. Expressiveness and Physicality in Interaction. Journal of New Music Research, 29(3):187-198, 2000.
2. W.W. Gaver, J. Bowers, A. Boucher, H. Gellerson, S. Pennington, A. Schmidt, A. Steed, N. Villars, and B. Walker. The drift table: designing for ludic en- gagement. In Conference on Human Factors in Computing Systems: CHI'04 extended abstracts on Human factors in computing systems, volume 24, pages 885-900, 2004.
3. G. Levin and Z. Lieberman. In-situ speech visualization in real-time interactive installation and performance. In Proceedings of The 3rd Inter- national Symposium on Non-Photorealistic Animation and Rendering, pages 7-14. ACM Press, 2004.
4. J.G. Sheridan, N. Bryan-Kinns and A. Baylss. Encouraging Witting Participation and Performance in Digital Live Art. 21st British HCI Group Annual Conference, 3-7 September, Lancaster, UK, pp. 13-23, 2007.
5. A. Tanaka. Musical Performance Practice on Sensor-based Instruments. Trends in Gestural Control of Music, pages 389-405, 2000.
6. R. Taylor, P. Boulanger, P. Olivier, J. Wallace. Exploring Participatory Performance to Inform the Design of Collaborative Public Interfaces. In Conference on Human Factors in Computing Systems: CHI'09 extended abstracts on Human factors in computing systems, 2009. (In press)
7. R. Taylor, P. Boulanger. Deep Surrender: Musically Controlled Responsive Video. In Proc. of the 6th International Symposium on Smart Graphics, pp. 62-69, 2006
8. R. Taylor, P. Boulanger, P. Olivier. dream.Medusa: A Participatory Performance. 8th International Symposium on Smart Graphics, Rennes, pp. 200-206., 2008.
9. T. Winkler. Audience participation and response in movement-sensing installations. In Proc. of the International Computer Music Conference, December 2000.
10. P. Wright, J. Wallace, and J. McCarthy. Aesthetics and experience-centered design. ACM Transactions on Computer-Human Interaction (TOCHI), Article No. 18, ACM New York, NY, USA, 15(4), 2008.