

**Integrating Practice Based and Neuroscientific Perspectives
on the Impact of Digital Technology
on Contemporary Narrative Dramaturgy,
Investigated through Live Simulation Exercises.**

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A thesis comprised of an experimental creative output and exegesis submitted
to the University of Technology, Sydney, in fulfilment of the requirements
for the Degree of Doctor of Creative Arts.

2013

CERTIFICATE OF ORIGINAL AUTHORSHIP

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of Candidate

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Acknowledgements

While the questions that led to this thesis date back across many years of practice involving innumerable artistic collaborators, I remain particularly indebted to the individuals who took the time during my candidature as a research student to listen, share insights and support these explorations. I have been very fortunate to share this journey with many open spirits and agile minds.

To begin with I would like to thank Professor Ross Gibson. I walked into his office several years ago with the presentiment that it would be enriching to engage with him as a supervisor – and that intuition never once proved me wrong. I doubt whether I would have had the fortitude to embrace this inter-disciplinary trajectory without his enthusiasm, insight and great capacity to move between intellectual and artistic endeavour. Many thanks also to my Co-Supervisor, Professor Rick Iedema. Our discussions were immensely reassuring in setting up the medical simulation exercises. It was wonderful to find a ‘home’ at the UTS Centre for Health Communication.

I must also acknowledge Professors Ian Gibbins and Marcello Costa whose generous conversations - often at the Art Gallery of South Australia - opened up the world of neuroscience to me. And Dr. Braden McGrath, whose chance encounter highlighted the growing field of simulation and the learning that might come from it.

My gratitude also goes to Dr. Dave Sainsbury for introducing me to the Simulation Unit at the Royal Adelaide Hospital (RAH), and for allowing me to experience the operating theatre first hand. The insights of that day continued to accompany me throughout this research. I remain indebted to Dr Graham Lowry, Director of the Simulation Unit at the RAH. This research would not have been possible without his willingness to embrace my investigations. I owe immense gratitude to Graham and his exceptional team of participating clinicians for their time, their knowledge and their candour. It was a privilege to have access to such experts and their working processes. What transpired across our interviews and conversations has gone far beyond the technical; their care and humanity still resonate within me.

My appreciation also goes to Senior Medical Scientist, Anna Marie Carrera for her support and facilitation of this research project within the hospital. The trials, a first for the unit, were conducted amongst the immense pressures and real life emergencies at the RAH, and required an enormous commitment from everyone involved. For his practical support in the preparation of this manuscript, credit goes to Peter Heydrich for his invaluable editorial, formatting and proof reading assistance. I would also like to acknowledge James Coulter for his advice, Paola Niscioli for additional proof reading and Domenic Minorchio for the video transfer.

A big thanks to Juleigh Slater for helping me through the unexpected vicissitudes of my candidature and to Mark Ward whose fabulous conversations sustained me as a fellow researcher and traveller. But most of all, my deepest gratitude extends to Peter for being a truly generous partner, for maintaining his sense of humour and for frequently putting his own wishes on hold while I pursued this adventure.

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Abstract

The collision of the dramatic and narrative arts with digital technology has seen the emergence of distinct narrative experiences incorporating new attributes such as interactivity and participant's agency within the unfolding of the work. The disruption caused by these innovations and attributes has been hotly debated in many creative industry forums and further reinforced in theoretical discussions focussing on narrative and interactivity, a case in point being the 'story versus game' debates waged between the narratologists and the ludologists.

As a director and deviser of live performance, my own use of digital technology in productions throughout the 1990s generated concomitant dramaturgical dilemmas regarding the changing structure of narrative and the shifting role of the audience. From the outset of my investigations into these challenges it was clear there was a critical problem to be addressed. Temporality, and the ordering of experience and events in time, provides the foundation of storytelling and narrative dramaturgy. While conventional story structure is predicated on a reflective, re-telling of experience, games and many emerging forms appear to be contingent on a form of lived experience and enactment.

This doctorate examines particular aspects of narrative understanding as it is affected by the emergence of these new modes of dramaturgy and performance. Given that the new developments seemed to be challenging western dramatic conventions, in particular the key Aristotelian tenet of representation, I guided my research with this question: 'How is this technological disruption renegotiating our traditional Aristotelian sense of time and presence?'

This thesis investigates the question from a neuroscientific perspective, integrating practice-based understandings and creative experimentation with neurobiological insights from Antonio Damasio, Francisco Varela and Benjamin Libet. It does so under the supposition that the shifts in narrative composition might in fact be reflective of how we process information. Further, it puts forward the proposal that we might enhance our understanding of contemporary narrative experiences by considering a model of dramaturgy that is informed by this understanding of the brain's processing mechanisms.

In order to test this proposal I firstly set up a live simulation as an example of a technologized and interactive performed narrative, and then I distil four creative micro narratives from that simulation. I then analyse and discuss the micro narratives as forms of neurobiological sense making, potentially indicative of a compositional structure based on an alternate, neurobiological temporal dynamic.

The creative experiment and research findings (delivered in the exegesis) suggest the emergence of a new dramaturgical aesthetic and poetic of time; one that is predicated on a neurobiological dramaturgy distinguished by subjectivity, embodiment, enactment and above all, 'presentness'.

Notes To The Reader

One of the challenges in embarking on this multidisciplinary research was that of necessity, I needed to navigate across diverse and frequently opposing processes - subliminal, intuitive, analytical and reflective. Scholarly practice requires that these processes be rendered explicit and understandable to the reader through contextualisation and analysis. The illusion, when faced with a completed thesis, is that these processes have occurred in an orderly fashion; that there is an inherent sequential logic to the knowledge gained during the course of the investigation.

The reality of creative practice is quite different. Often I was pursuing a course of action purely on a hunch, uncertain where it would take me, and the observations to emerge during the elaboration of the work were frequently haphazard and not easily interpretable. The actual process of sense making (as is hopefully demonstrated across this thesis) is far more nuanced and circuitous than linear and direct. The test remained as to how to impart this process to the reader such that they too might glimpse some of the revelations and epiphanies through an analogous inter-weaving of narrative threads and sense making processes.

Naturally, the reader is free to logically (and expediently) embrace this dissertation by reading in a linear fashion from beginning to end. Indeed, sections of *Emergency in the Sim Ward* are deliberately punctuated by time codes to provide a chronological record of how events progressed. However, this chronological framework differs significantly from the experiential narratives and trajectories captured throughout the creative endeavour: chronological and experiential time loop across each other in a disorderly manner.

Apart from the introduction, which by necessity acts as a springboard for the origin of this research, the ensuing creative artefact, analysis and addendum are more indicative of a series of narrative loops; a pattern of weavings moving forwards, across and back on each other in a flow of information, analysis and sensation.

Emergency in the Sim Ward has an overarching framework and structure. The reader is welcome to construct their own path, and interrupt the linear narrative with digressions into the analysis, addendum and video excerpt. Often the very same understandings and insights are highlighted in differing ways as the clinicians strive to consolidate their own subjective experience. The micro narratives and their analysis respectively offer an internal experiential view and external objective view of the same process. The analysis itself takes on different nuances when contextualised against theories of brain functions.

To this end I am particularly compelled to say a few words about the addendum. It contains two important 'narratives' that go to the heart of my undertaking, plus an accompanying video documentation of a 'sample' simulation enactment.

The first narrative is a description of the medical scenario as developed by the Simulation Director, which provides the foundation for *Emergency in the Sim Ward*. It functions as a performance 'canovaccio' and the reasons for its inclusion are explained within the exegesis.

The second narrative is a consideration on the processing brain and is intended as a companion narrative for the neurobiological theories that underwrite my experiment. Whilst the majority of my scientific references are elaborated via footnotes, the overall picture of the brain to emerge across my readings was influenced by a range of experimental theories and considerations from the evolving field of neuroscience. Each discipline's questions about the processing brain would often steer towards more complex readings about consciousness itself as different scientists and philosophers delved into explanations about the elusive mind-body relationship.

As an artist I needed to make sense of, and collate, the ideas that most excited and influenced me in such a way that they formed a cogent thread and springboard for the ensuing creative speculation. My introduction to the brain serves that basic purpose, and is offered to the reader for precisely the same reasons: not as a scientific study, but as a condensation of the readings that shaped my understanding of the working brain. Some readers may prefer to read the Addenda after the Introduction so that they can carry these overarching perspectives across the subsequent chapters. Readers may also include reference to the video excerpt in Addendum 3 in similar fashion.

This doctoral research and its conclusions are therefore put forward through a variety of frames: creative, poetic, theoretical, and practical. As already noted these insights are not at all sequential. I regularly found myself revisiting material and experiences in order to make sense of the territory. Across this process I also eventually came to a place where intuition, experience, reflection and analysis no longer felt as opposites. Mirroring in a sense, the broader themes of this inquiry, the different roles of artist and researcher, experience and reflection, are intertwined, overlapping to become part of a larger, more fluid understanding.

The Doctorate of Creative Arts (DCA) bestows particular value to the creative component of the work produced during the research phase of the doctoral candidacy. The dossier in front of you contains this creative work (entitled *Emergency in the Sim Ward*) as well as the 'exegetical' material that is required by DCA guidelines to accompany it. Usually DCA candidates separate these two components, offering two distinct documents. However, given the declared non-linear nature of my creative and analytical processes, I have woven the two elements together in a single dossier, allowing the exegetical work to both surround, and be interlaced by, the creative work.