The Power of Vulnerability

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1. Preamble: Red Armchair 4

I have been working for the last fourteen years in the field of interactive installations, which involve engagement with digital/projected characters and autokinetic objects. I have always been interested in the effect of fascination that projected characters have on spectators, not only in a cinematic space but in a gallery installation space.

In one of my earlier works, *Red Armchair 4* (1995-96), audience expectations were manipulated by withholding the full appearance/identity of the projected character, whose face was never revealed. In *Red Armchair 4,* the visitor walks into a red-lit room and is presented with a projected image of a woman in a black dress. She is viewed from the back, seated on a red armchair which ensconces her in a shell-like embrace. An identical chair is placed in the middle of the room, where the visitor can sit facing the back of the projected woman. On the floor there is a light box printed with the command words:

DECAYCONSUMETALKDANCESHRINKAWAKELOOKDIE

A microphone adjacent to the visitor's chair enables him/her to talk to the woman on the screen by forming sentences that include the command words chosen at random (for example: 'Talk to me' or 'Die for me'). Every time a participant says a command, the character is activated, moving from a still frame to a moving image. Her physical responses, however, are completely unrelated to participant's spoken requests. She runs her fingers through her hair, falls asleep on the arm of the chair, swings her legs. She appears to be in her own space, comfortably consumed by self-absorption. The only time she stands up and walks towards the participant, her head is out of the frame; the participant's desire to see her face is never satisfied.

My fascination with the complex relationships between the spectator and a projected character started with 'Red Armchair 4' when, to my surprise, I realised that although the projected woman's relationship to her visitors is unrewarding – they don't even see her face – they were fascinated by her, and revisited her several times. The title of this presentation, The Power of Vulnerability is a 'borrowed' title from an essay[1] Anne Marie Duguet recently wrote on my work. Anne Marie's title has resonated with me as it identifies a common thread that runs through my work – from 1997 until the present time. What follows is a presentation and a brief discussion of these works.

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[1] Anne Marie Duguet. 'The power of vulnerability' in *Double Take: Anne Landa Award for video & new media arts 2009*, Art Gallery of New South Wales, p. 45, ISBN 978174174031.

Red Armchair 4 (1998), detail.

Other Works

In *Pin Cushion (2000)*, a female character is projected onto a latex cushion. Large acupuncture needles are embedded into the character's face. When the viewer touches the needles, the projected woman responds and devolves. The range at which the image changes, and the instantaneous morphology that the degrading image assumes, depend on physiological properties of the viewer: surface electrical conductivity, resistance to electrical currents, and the latent charge of the viewer's own body. The digital character's lifespan and well-being are dictated by the collective intentions of the viewers/participants over the exhibition period. I always thought o*f Pin Cushion* as a work which explores elements of tactile desire, manipulation, violence and identification. Participants decide whether to control or abstain from manipulating a projected character, which puts them in a position of control over the artwork.

In *Unstill Life(2000)*, a collaborative work with Gary Zebington[2], a digital portrait observes and responds the interactions between the installation visitors and apples. If the visitor eats an apple, the portrait alters and gains digital weight, in proportion to the bites taken; if the visitor abstains the portrait decays; and if the portrait receives insufficient attention (time spent, apple interaction) animation frames are deleted and the portrait gradually vanishes. *Unstill Life* utilises an organic interface (apples) to attract and seduce the spectators, and at the same time to sustain a projected character's well-being. This interface creates a momentary relationship of

[2] Garry Zebington is an artist and a software designer.

interdependency between the participant and the projected character. In a similar way to *Pin Cushion*, this work highlights the outcomes of the participant's action or inaction.

Pin Cushion (2000).

Unstill Life (2000), installation view.

Unstill Life (2000), detail: The woman in a sick state.

The Fish-Bird Series (2004-09)

In all of the above discussed works, the projected character has been a major feature in my interactive installations. With the, *Fish-Bird*, project my work moved towards a different direction, from projected characters to autonomous three-dimensional kinetic objects. This was a large conceptual and technological shift in my practice and required a different level of collaboration and support. *Fish-Bird Circle B - Movement B* is an autokinetic artwork, in three stages, which aims to investigate the dialogical possibilities that exist between autokinetic objects (two robots disguised as wheelchairs) that have the ability to communicate with each other and with their audience through several modalities. Assisted by integrated printers the chairs print/write intimate letters on the floor, impersonating two characters (Fish and Bird) who fall in love but can not be together due to 'technical' difficulties. In their shared isolation, Fish and Bird communicate intimately with one another via movement and text.

Spectators entering the installation space disturb the intimacy of the two objects, yet create the strong potential (or need) for other dialogues to exist. The spectator can see the traces of their previous conversation on the floor, and may become aware of the disturbance that s/he has caused. Dialogue occurs kinetically through the wheelchairs' 'perception' of the body language of the audience, and on the audience's reaction to the 'body language' of the chairs. A common initial reaction to the unexpected disturbance would be to converse about trivial subjects, like the weather... Through emerging dialogue, the wheelchairs may become more 'comfortable' with their observers, and start to reveal intimacies on the floor again. Dialogues do not cease when all spectators have left the installation.

Fish-Bird Circle B – Movement C (2005).

The wheelchair was chosen as the dominant object of the installation for several reasons. A wheelchair is the ultimate kinetic object, since it self-subverts its role as a static object by having wheels. At the same time, a wheelchair is an object that suggests interaction – movement of the wheelchair needs either the effort of the person who sits in it, or of the one who assists by pushing it. A wheelchair inevitably suggests the presence or the absence of a person.

Furthermore, the wheelchair was chosen because of its relationship to the human – it is designed to almost perfectly frame and support the human body, to assist its user to achieve physical tasks that s/he may otherwise be unable to perform. In a similar manner, the *Fish-Bird* project utilizes the wheelchairs as vehicles for communication between the two characters (Fish and Bird) and their visitors. Finally, the wheelchair also possesses an aesthetic that is very different from the popular idea of a robot, as it is neither anthropomorphic nor 'cute.' Given that a wheelchair is a socially charged object the 'interactive behaviour and the scripting of how the chair should move was developed in consultation with wheelchair users. The participants are not allowed to sit on the wheelchairs and If a participant sits on it an embedded sensor on the upholstery of the seat shuts the whole system down until the participant vacates the wheelchair.

To place *Fish-Bird* within a contemporary art context, I argue that it confronts continuing major issues and concerns regarding dialogue through the human/machine interface. This dialogical approach follows the post-industrial tradition, but extends it to incorporate notions of trust and shared intimacy. It is intended that the technology used in the project will be transparent to the audience. Going further than a willing suspension of disbelief, a lack of audience perception of the underlying technological apparatus will focus attention on the poetics and aesthetics of the work, and will promote the deeper psychological and/or experimental involvement of the participant/viewer with the art work. The audience internalises the Fish and Bird characters through observation of the words and movements that flow between the characters, and between the characters and the audience, in response to audience behaviour. Through movement and text the artwork creates the sense of a person, and allows an audience to experience that person through the perception of what is not present.

In *Fish-Bird*, the robots use movement to convey awareness – for example, they turn to face a person entering the installation space. Changes of speed and direction are used to convey mood and intention. A robot indicates dissatisfaction or frustration during interaction with a human or robot participant by accelerating to a distant corner, where it remains facing the walls until its 'mood' changes.

The manner in which the participants move in the space, their proximity to the robots, and the time spent with them determines the behaviour of the robots towards them. In a way, human participants try to read the body language of the robots and the robots the body language of the participants.

Each wheelchair writes in a cursive font that reflects its 'personality.' Different fonts also serve as a practical cue that assists the audience to identify existing text written by a particular character. The written messages are subdivided into two categories: personal messages communicated between the two robots, and messages written by a robot to a human participant. Personal messages are selected from fragments of love-letters offered by the public over a period of three years, from the poetry of Anna Akhmatova (1998), and from text composed by myself. Messages that a participant may receive from a character include those of frustration and

desolation: ‘My heart is broken’; of invitation: ‘Oh, strange person come closer to me’ or even of amorous confession: ‘Everything I see resembles you’.

Fish-Bird is a project I wanted to work on for the last seven years but due to ‘technical difficulties’ (just like the Fish and Bird characters) it couldn’t be realized. I even created a small installation *Fish-Bird Circle A Movement A* (1998) in order to introduce the project.; two medical cabinets their interiors were covered with elastic bandage. The words Fish and Bird was written on the bandage in red miniature led lights.

I discovered the Australian Centre for Field Robotics and presented the proposed *Fish-Bird* project in February 2002. The director, Professor Hugh Durrant-Whyte, introduced me to Dr David Rye, Dr Steve Scheding and Dr Stefan Williams, three roboticists who shared similar interests and concerns, like myself, in human-machine interface. We started working together as a team in 2003. *Embracement (2003),* a light-reactive installation, was our first collaborative project at the Centre[3].

Embracement (2003), detail.

[3] The Australian Centre for Field Robotics (ACFR) is a partner in the ARC Centre of Excellence in Autonomous Systems. Dr David Rye, Dr Steve Scheding, Dr Mari Velonaki and Dr Stefan Williams form the core art/science collaboration at this institution. Areas of research include robotics, distributed and decentralised systems and human/robot interaction. In 2006 the Centre for Social Robotics was established within ACFR: a centre dedicated to research and development of robots able to interact with and assist humans in socially empowered environments.

Fragile Balances (2008-09)

In the first work, *Circle D: Fragile Balances* (2008), two luminous cube-like objects appear to be floating above the surface of a lacquered wooden structure that perches on impossibly slender legs. Each object is comprised of four crystal screens where 'handwritten' text appears, wrapping around it. The text represents personal messages that flow between the two virtual characters Fish and Bird, and in that sense each object is a physical embodiment of a character. The objects can be lifted from their wooden stand and handled freely by participants. Handling provides an interface that facilitates bidirectional communication between the participants and the artwork.

Circle D: Fragile Balances (2008).

Interactive State: if a gallery visitor picks up one of the cube-like objects from its floating base the text becomes disturbed and barely readable, influenced directly by the movement of the visitor's hands. The sensitive structure of the personalised messages flowing between the two fictional characters remains disturbed as long as the visitor moves or turns the object quickly or abruptly. The only way that the participant can allow the messages to again flow around the

object is to handle it with care – gently and softly cradling the object in his/her hands in concert with the rhythm of the 'handwritten' messages.

If the luminous cube objects are not handled by visitors the work stands on its own as a complete sculptural piece containing an internal kinetic element – the moving text.

Its companion, *Circle E: Fragile Balances* (2009), allows the audience to write personal, intimate messages on slips of paper and 'post' their messages through a slot in the slowly rotating brass drum of a machine that is mounted on a polished wooden base. All the intimate letters are scanned and, at a later stage, added as text to the interactive cubes of *Circle D: Fragile Balances.*

These two works are the final elements of the Fish-Bird series. For me, *Circle E* closes the cycle by allowing the audience to become participants by writing letters intended either for the Fish and Bird characters or for their loved ones.

Both works are realised in collaboration with David Rye and Steve Scheding at the Centre for Social Robotics, Australian Centre for Field Robotics (ACFR) at the University of Sydney.

The Woman and the Snowman Series (2009-10)

The Woman (2009), still from digital video.

The Woman, 2009 Digital video

My fascination with fictitious characters and impossible love stories (Fish-Bird 2003–2006) has led me to create another quasi-impossible analogy between an obviously fictional character, like a snowman, and a woman. Here, the snowman—as an honest representation of a fictional being—is more real than the woman. The woman, although she appears to be human, is a humanoid robot (Ishiguro 2007) created by Professor Hiroshi Ishiguro of Osaka University.

It is common knowledge that photographic images can be 'photoshopped' and video can be altered to introduce fictitious elements that cannot be distinguished from reality. Professor Ishiguro's humanoid robots go further than this: they are real physical objects that are often mistaken as humans by casual observers. In a world that is subject to rapid and seemingly unrestrained technological advancement—leading to unexpected environmental and social changes—this work experiments with the notion of sensory perception and visual ambiguity. In this installation the local environment forms the thread that binds and mediates, concealing and revealing the relationship between the woman, the snowman and their shared environment

The Woman and the snowman (2009-10), still from digital video.

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