Appendix E: *Emergence v3*

E.1 Introduction

As the definitive version, *v3* pre-production used triple the pre-production time for *v2*. This appendix discusses three of my Interaction Designs for Quantitative Interactivity in *v3* to demonstrate the project development and response from evaluating *v2*. These Designs are contextualised via a brief overview of creating *v3* as companion to Chapter 6, as aspects of creating and implementing *v3* are incorporated into the discussion of *v2* in Chapter 6. My 13 other Interaction Designs for Quantitative Interactivity, extensive Designs for Qualitative Interactivity, and re-conceiving and re-writing the form and content are not recounted as they are beyond the scope of this dissertation.

Following the success of *v2*, *v3* was Co-Produced by Sydney Opera House (SOH) Studio and awarded a grant from Australia Council for the Arts (OzCo) for "the creation and implementation of a nuanced and interactive system"[847] including extensive "revision of the script, scenes, shooting procedures etc. via integration into the work"[848] which would "vastly expand the

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[847] Bolotin and Wodak 2005:16.

[848] Bolotin and Wodak 2005:14.

amount of narrative possibilities (almost double) and increase the interactive options of the work."[849] Bolotin and I submitted to OzCo in October 2005 that "audience[s] will be able to control the work…through a number of different quantitative and qualitative interfaces" related to "the nature of the subject matter – biotechnology, group psychology, democratic decision making" such that Interaction Design explored "these themes via technologies central to these fields of practice and the merging age of 'the post-human.'"[850] Interactivity was distinctly developed from *v2*, which "primarily involved triggering areas of coloured light" whereas *v3* would "significantly rework the interfaces with the support of this New Media Grant."[851] The following concentrates on these aspects, as the majority of my work on *v3* was in these areas.

E.2 Contributions and Collaboration

Alongside continuing all my roles and responsibilities outlined on p253 of Chapter 6, my *v3* contributions increased substantially in:

1) Overhauling, re-writing, expanding and developing the concepts, themes, narratives and structure

2) Logistical, administrative and technical domains of co-organising a prospective 2007 tour to 22 regional, remote and metropolitan venues around Australia

3) Recruiting and training pre-production computer scientists, mechanical engineers, electrical engineers and technologists to build my Interaction and Interface Design and AVMS

4) Recruiting and training production personnel to operate and tour my Interaction and Interface Design and AVMS as well as all other technical aspects of staging and touring *v3*.

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[849] Bolotin and Wodak 2005:11.

[850] Bolotin and Wodak 2005:12.
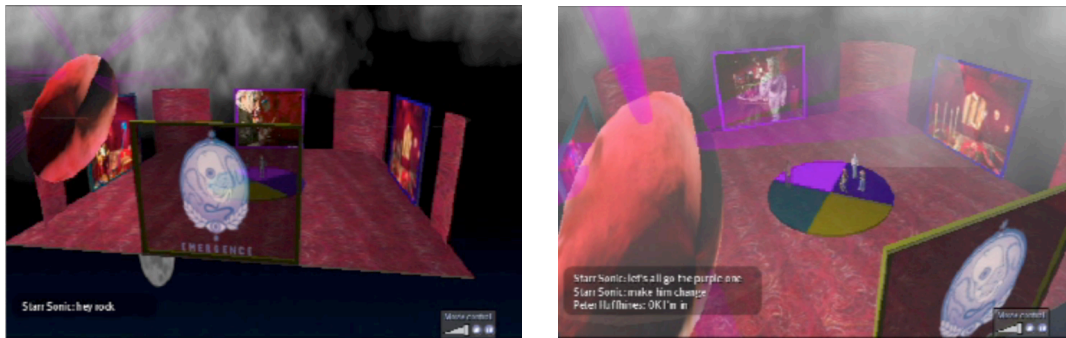
[851] Bolotin and Wodak 2005:15.

E.3 Project Development

Work on the performance component chiefly concerned whether to re-write the work from scratch in light of attendees' and reviewers' criticisms of the overly deterministic binary structure and limited options in *v2*, or to develop the *v2* format further. When Nick Curnow, who played *Ram*, opted to leave the project in December 2006, it appeared all pre-recorded *v2* materials could not be re-used. In Bolotin's solution, Curnow's *Ram* transmogrified into a 'more-human' male or female *Ram* after which the live actors playing *Ram* engaged attendees in dialogical interaction like *Punishment* and *Interrogation* from *v2*. Bolotin's premise for transmogrifying was that *Ram* required further 'humanisation' of his volition or imposed by Parents according to pre-determined paths for this scenario. The 'humanised' *Rams* were one male and two females, each impersonating Curnow's mannerisms. Curnow temporarily returned to film the intermediary scenes explaining his transmogrification. Other narrative and structural aspects of the implemented *v3* were substantially the same as those discussed in relation to *v2*, with the exception of periodically employing the ternary structure I designed for *v2*.[852]

I undertook an additional role as Cross-Media and Multi Platform Narrative Designer, involving co-developing the meta-narrative across pre-performance, performance and post-performance components. The same writers who wrote *v2* all wrote for the performance component of *v3*, while Bolotin and I also wrote extensively on pre- and post-performance components. Pre- and post-performance components were substantially developed when Bolotin, Tabone and I attended a Laboratory for Advanced Media Production (LAMP) residency with the Australian Film and Television Radio School (AFTRS) in June 2006. LAMP consisted of eight days of intensive production on an island in NSW, along with other selected groups from around Australia. We developed our ideas under the tutelage of AFTRS staff, culminating in presenting the rapid prototype of pre- and post-performance components to national and international figureheads from media, industry,

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[852] See p260.

Universities, Governmental Cultural Institutions and NGOs on the last day.[853] The following two screengrabs illustrate a proof-of-concept in partially incorporating the online environment of *Second Life* into a Mixed Reality version of the performance:

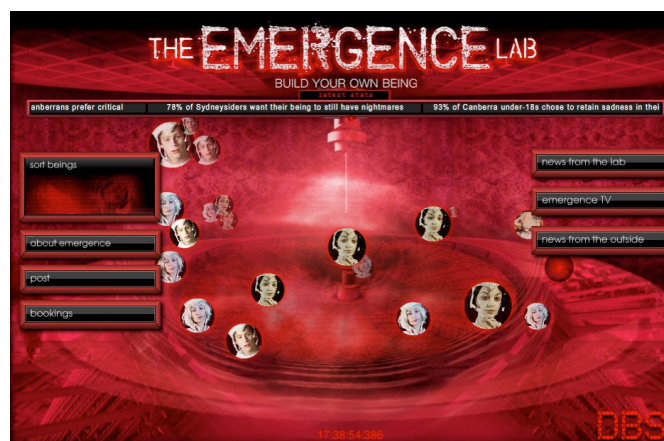Figures E-241, E-242: Proof-of-concept constructed during *LAMP*

Figure E-243: Screengrab of the online pre-performance component,

where participants could begin to vote for the 'pre-birth' genetic modification of their Being

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[853] Chris Winter and Tim Kobin were the moderators for this presentation and for the feedback offered by the audience. People in the presentation included Justin Viles (Google Content Acquisition Manager), Ben Goldsmith (AFTRS Acting Head of Department - Centre for Screen Studies and Research), Chris Simon (iExecutive Creative Director Global Networks), Jennifer Wilson (HWW Managing Director), Geof Heydon (Alcatel, Director of Market Development and Innovation), Malcolm Long (AFTRS Director), Teresa Rizzo (AFTRS Lecturer, Centre for Screen Studies and Research), Timothy Kobin (AFTRS Design Lecturer), Adrian Norman (AFTRS Educational Designer), Tory Epworth (Telstra BigPond Manager, Mobile Content), Guy Gadney (Telstra Bigpond Director, Content Production), John Buchanan (Carnegie Mellon University Professor), Sally Browning (NSW FTO, Head of Development & Investment), Graeme Uhd (Nine Network, Client Strategy Unit Manager), Paul Whybrow (Foxtel General Manager, Interactive TV Services), Chris Oliver (Film Finance Corporation Australia, Investment Manager), Chris Winter (ABC Manager, Digital Interactive TV/Channel Manager ABC2).

Figure E-244: Screengrab of the online post-performance component, where participants select the Being built
during their performance, and continue to engage with it via the website section for each Being built

Figure E-245: Screengrab of the online post-performance component, showing which genetic modifications
and proportional split of voting for the Being built on the 3:30 pm staging on September 23 2007.
At the bottom of the screen is a button, 'Interact with your Being,' which lead to a forum
where participants could continue to engage with it and Parents from their staging

LAMP was "to realise the cross-platform interactivity of the work so that it expands the scope and subject matter of the performative component most effectively."[854] Bolotin maintained "this cross-platform expansion of the work would not only reflect the increased interactivity of the work but perfectly suit the subject matter" regarding real-world pre-birth genetic screening and audiences "setting preconditions for the 'building of the being' online before

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[854] Mark Bolotin. 'Application for *Synarcade* residency at *LAMP*.' 2006:4.

the actual show"[855] (Figure E-243). He maintained such cross-platform expansion addressed "one of the underlying aims of the work," being "to give audiences, who might be traditionally adverse to technology and 'interactivity,' the opportunity to shape and control the story in an engaging and exciting way." One of the "main goals for the LAMP residence" was "to make this interactive technology accessible to a broad public audience."[856] Elizabeth Bentley's review summarised how this was implemented:

Audience members visit a website in advance to vote for the basic building blocks of their "embryo" which becomes the being they can modify on the night. They can also post a message to their virtual child. *Emergence* takes audience interactivity to a brave new level.

Figure E-246: Elizabeth Bentley review in *Drum Media*. 28 August 2007.

As Interaction Designer for pre- and post-performance components as well, the following outlines how I constructed consistent Artist-Artwork-Audience relations across the disparate domains of the online and theatrical components:

Contextualising the staging by interacting with pre- and post-performance components encourages sustained and meaningful interaction with the meta-work.[857] The cross-platform interaction modalities complement one-another, despite disparities between solo-online versus group-theatrical interaction. The meta-story constructs continuous interactivity and responsibility connecting all three components. In pre-performance, Pre-Parents collaboratively determine base personality and behavioral predispositions of their Being to be built during the staging (Figure E-243). These fundamentals affect evolutionary trajectories for each Being. To inform

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[855] Bolotin 2006:2. As an example, Andrew Taylor's review, *Try Your Hand at Creating an Ideal Human Being*, described his pre-performance activity as having "chosen to have a son who will be screened for 'genetic abnormalities' like diabetes, autism, sarcasm and romanticism so he can live a long, but not too exciting life and hopefully care for me in my old age." *Sydney Morning Herald,* August 13 2007.

[856] Bolotin 2006:1-2.

[857] 'Story' refers to the performance narrative. 'Meta-story' refers to performance with pre- and post-performance components, collating cumulative audience DaP data and cumulative Beings from each staging.

Parents of their responsibilities, the website offers serious and satirical analysis of the topical issues within 'Emergence.' It also illustrates some parameters of the staging via allusions to different political platforms, voting, forms of government and more backstory about the DBS and the rationale for the experiment. This aims for Parents to inform one another about the 'Outside' world when they are 'Inside' the artwork-as-Environment, as those who participated in the pre-performance component may take it upon themselves to enlighten fellow Parents who did not engage with the pre-performance component. Pre-performance establishes interest in the cross-media nature as it continues post-performance in the same medium (the internet) as it began.

Online interactivity disallows one-on-one interaction between a Pre-Parent and an embryonic 'Ram,' to avoid Parents interacting without the collective responsibility required during the staging. Pre- and post-performances allow individual input in collaboration with other Parents. Pre-birth influences are exerted by Parents' aggregate interactions, subject to self-organising and self-administering by other Parents, such as determining 'Ram's' gender and related psycho-physiological attributes.[858] *This presages their 'coerced cooperation' during the staging, so 10 Pre-Parents advocating adjustment A but 20 advocating adjustment B results in adjustment B subject to the variable Rules.*

In Post-performance, Parents continue raising their Being by interacting with it online. Each 'Ram' released during its' staging is sent to the online environment of the post-performance component (Figures E-244, E-245). *For consistent Interaction Design, interaction is collaboratively moderated with fellow Parents from the same performance, subject to the semi-autonomous behaviour of their Being. The Being continues to report back on their state of socialisation in the 'Outside' environment, which is subject to what genetic*

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[858] In numerous pitches, workshops, grant applications, sponsorship requests and applications to venues, a high proportion of people responded negatively about the gender of the Being being male and that this was fixed and unalterable by the audience. In v3, attendees could vote through the pre-performance website on the gender of their being. According to their votes, the Being transmogrified from the embryonic male *Ram* into a male or female *Ram* during the staging.

modifications they received from Parents during the staging in which they were built.[859]

E.4 Interaction and Interface Design

In April 2006 Bolotin supplied his only design brief for Interaction and Interface Design and the AVMS. It re-affirmed the same requirements regarding developing interactivity and interfaces as those we submitted in our OzCo grant provided primarily for this area. Bolotin's brief desired "evaluation [of DaP profiles] during the performance and post-performance on the website" which "will require some more developed technology" such as "evaluation consoles, psychological test consoles, PDAs" or "mobile phone technology."[860] Before discussing how my Designs embodied these criteria, the following briefly illustrates my production and collaborative process.

Designs were made in three distinct groupings. In Phase#1 (October 2005 - August 2006) and Phase #2 (September 2006 - January 2007) I was the only person in Interface, AVMS and Technical Departments. Recruiting was not possible during Phases#1 and #2 as Tabone was not able to provide a budget, production schedule or touring dates, due to variations in the premiere season as part of organising a national tour. In February 2007 the last postponement confirmed the premiere to be August 2007 and Tabone confirmed a ballpark budget for my areas. I was then able to recruit the personnel by the beginning of Phase#3 (February 2007 - May 2007). Phase#1 (Designs#1-4) were relatively simple due to the premiere being scheduled for August 2006. Phase #2 (Designs#5-10) were facilitated by extending the premiere till February 2007. Phase#3 (Designs#11-16) completed all Interaction Design and completed all my other pre-production from securing all appropriate personnel to implement my Interface and AVMS. All Designs incrementally built on previous Designs, with recourse to differing combinations of the Tools and Rules outlined in

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[859] The implementation of this, including the post-performance component, can be seen on the website for the project at http://buildyourownbeing.com/lab/1.html.

[860] Mark Bolotin. 'Draft Interface Criteria for Josh Wodak.' April 14 2006.

Chapter 6.[861] The following briefly outlines Phase#3 production, as these Designs benefited from having the full production team on board.

Between February and May 2007 I conducted intensive group sessions with recruited computer scientists, electrical engineers, mechanical engineers and technologists. I also obtained frequent feedback from other relevant Departments, as well as from external consultants.[862] Determining the Tools and Rules had to be finalised by May. To obtain feedback on my nominated Designs, in March I gave a 90 minute presentation on 'Politics of Interaction and Interface Design in *Emergence*' to all key personnel, key creatives and external consultants. Their diverse backgrounds and knowledge about *Emergence* tested the intelligibility of my nominated Designs for people 'Inside' and 'Outside' the project. I presented the critical issues of Interaction and Interface Design in *Emergence* to solicit opinions about interacting with these Designs. Feedback was in person, phone conversations, email and in the internal online forums of the project's Wiki. Having incorporated this feedback, I gave a public presentation at the Sydney *Dorkbot* Seminar Series in April. Feedback was highly insightful, as *Dorkbot* discusses works-in-progress at the intersection of art, science and technology and is attended by eclectic people working in-between these fields.[863] This presentation critically evaluated the following three Designs.

Design#13 and Design#15 were my two nominated Designs for the national tour. They were two of the most complex and sophisticated Designs which most comprehensively responded to the evaluation of *v2*. Although well received by co-creators and audiences at the above two presentations, they could not be implemented as the national tour did not eventuate. My Design#11 was implemented as it was the best fit between available resources and the funding derived for the three seasons it was built for. Design#11 is discussed in the context of being staged in the three 2007 theatrical seasons and is also demonstrated in the video documentation of an entire *v3* staging

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[861] See p268.

[862] I informally but regularly consulted friends and collaborators Somaya Langley, Keir Smith, Warwick Lynch, Alex Thorogood, Benjamin Forster and James Sheridan.

[863] It was also instrumental to the project, as Andrew Goodman-Jones, an electrical engineer in the Interface and Technical Departments, was recruited through a prior Dorkbot event, as was Aras Vaichas, an External Consultant for RFID based Designs.

on Appendix E. The following first discusses the shared properties of Design#13 (Figure E-249, E-250) and Design#15 (Figure E-253) before discussing them individually.

Design#13 and Design#15 heighten the depiction of the experiment taking place in a futuristic police state. Each voter has a Unique Voting Identification (UVI) coded into RFID tags they are issued with. An automated system records every vote from every voter from every staging to reflect back cumulative patterns of different peoples' preferences. Design#13 assigns everyone a UVI but cannot obtain Demographic and Psychographic (DaP) profiles. Design#15 constructs UVIs with attached DaP profiles via an additional process that commences each staging.

The RFID readers are embedded in floor-mounted terminuses which emanate from 'Podium.' Terminuses do not obstruct voters' mobility or views of the projection screens and are quickly and easily assembled and disassembled within the skills, resources, time and ability of all co-creators. Voters choose which voting area to enter and which terminus to queue at, wherein they can expediently vote by bringing their RFID tag to within 5cm of voting terminuses. RFID only needs to pass within range for a fraction of a second to be read. As voters queue they can watch those in front vote to learn from them if they are unsure about the process. This information transmission creates another avenue for voters to interact with one another. Terminuses throb red and fade in and out (referring to heartbeat and blood pumping) to indicate when voting is possible. To know their vote has counted, the area immediately surrounding the terminus exterior turns green for two seconds, with red indicating an active state without any registered presence of RFID.[864] *UV lights embedded inside the terminuses also illuminate the RFID tag when it is brought within range of the RFID reader. A tally projected onto the screen corresponding to that voting option provides a live update of each vote as it is counted. Having voted, they can exit the voting area so they do not have to remain in the voting area for the duration as in 'v2.' This facilitates movement around 'Room Womb' before and after voting to increase contact between opposing voters.*

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[864] This green and red colour scheme was called *watermelon/melonwater*, in reference to Ecosocialist political symbolism. The voting system used by Raduz and *Cinematrix* also used red and green colours for voting.

RFID tags are embedded in a Hardware Audience Voting Identification Costume (HAVIC), a hybrid between a sash, necktie, harness and stethoscope that is made of cotton, Velcro and plastic (Figures E-247, E-248). *HAVIC is easy and quick to put on and take off.*[865] *The information pamphlet issued on arrival*
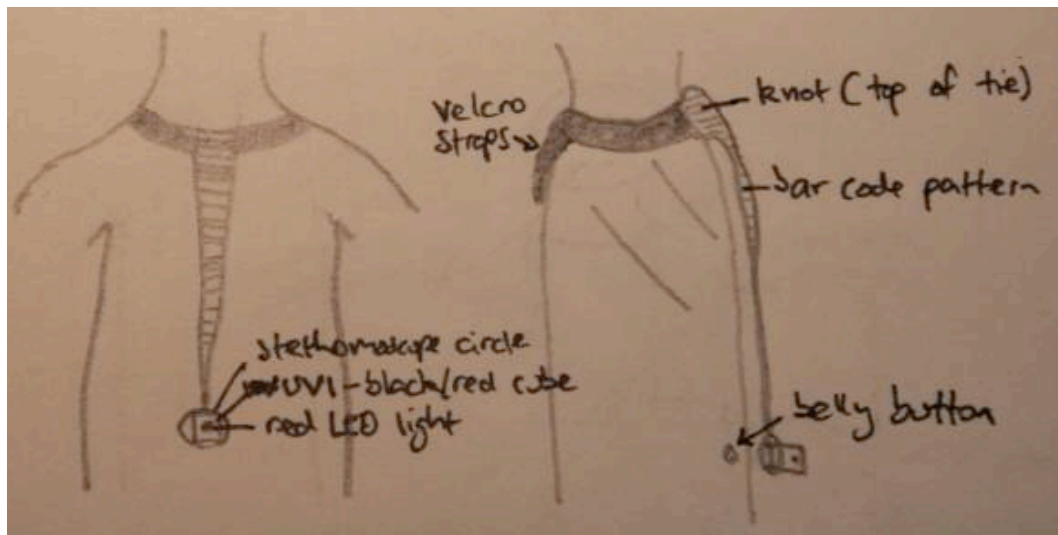

Figure E-247: A preliminary sketch for HAVIC, showing the two Velcro straps around the neck, the vertical strip going down towards the belly button and *embrIO* sticking out over the belly button, Josh Wodak
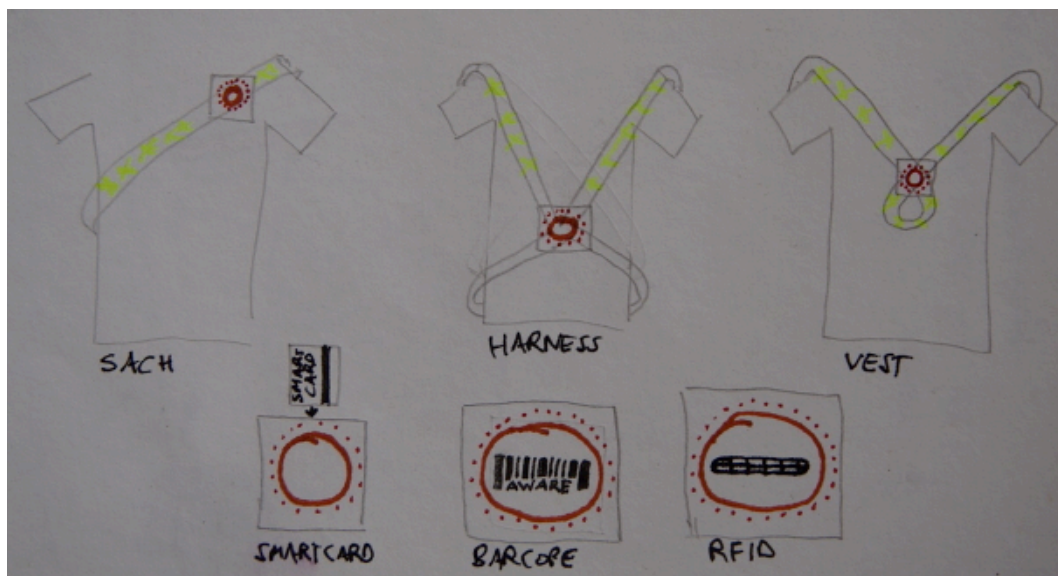

Figure E-248: Sash, harness and vest versions of HAVIC and *embrIO*, Josh Wodak

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[865] Taking other peoples' HAVIC or swapping HAVIC's during the staging would be unlikely as Velcro makes a very loud noise when separated, which would attract the attention of fellow Parents and/or *Hoster-Drones* and/or *Head*.

instructs how to wear it. One 'Hoster-Drone' roams the male area and another the female area to assist attendees. HAVIC is a metre long piece of flexible yet durable material shaped like a stethescope. The top has two 30cm long bifurcating sections with Velcro on one side and cotton on the other. Attendees wear the top as a collar by connecting the Velcro sections around their neck (Figure E-247). Velcro components are first attached at the front of the neck, where the knot in a neck tie goes. HAVIC is then rotated 180 degrees so the cotton component travels down the chest area, finishing where the belly button is on men and women of average height, depending on how tight attendees wear the collar. The collar size is adjustable for different body sizes, according to where the Velcro sections intersect. At the bottom is 'embrIO,' a 3x3x3cm red Perspex cube with the embedded RFID tag. 'embrIO' faces away from the body. To vote attendees pick up 'embrIO' and bring it to a terminus, as described in the paragraph above.

HAVIC and 'embrIO' evoke the following themes of the artwork:

1) *Attendees wear a similar 'controlling' device to 'Ram's' harness and circular dial, as 'embrIO' resembles the position and form of 'Ram's' circular dial and harness (Figure E-247).*

2) *'embrIO' positioned over the belly button refers to 'Ram's' umbilical cord, a woman's womb and fetus ultrasounds when 'embrIO' is scanned.*

3) *'Imprisoning' attendees by physically connecting them to the interface ironically provides close and faithful information back to attendees about themselves. This heightens awareness of monitoring attendees, as analysing everyone's 'genetic footprint' indicates everyone is being tracked.*

4) *Representing attendees by a code mirrors how government bureaucracy classifies citizens according to numbers, such as Social Security and Medicare. Ironically, reducing attendees to codes makes it possible to offer qualitative information about attendees.*

5) *HAVIC evokes a cross between jewellery/aesthetic decoration and being branded and labeled like an animal in reference to the sheep-shepherd motif. Branding and tagging attendees plays on the interplay between branding people and people*

banding together regarding flock mentality, swarm behaviour and pigeon-holing people while critiquing consumerism, military Dog Tags and prisoner foot bracelets, especially for house-arrest prisoners.[866]

The following discusses the application of this technology, protocols and processes in the different configurations and methods for Design#13 and Design#15.

E.4.1 Design#13

Design#13 constructs the above described voting process in 16 bollard-like terminuses distributed across 'Room Womb.'[867] *Male attendees are issued male HAVICs and females are issued female HAVICs by 'Hoster-Drones' as they enter 'Room Womb.' Each HAVIC has a UVI, but no DaP information is obtained from voters.*

The RFID readers are embedded in vertical Perspex cylinders placed along both diagonal axes, marking each quadrant boundary (Figures E-249, E-250, E-251, E-252). *At the top of each cylinder is an open cube where attendees bring their 'embrIO' to vote. This section is lined inside with red carpet so when voters put their hands in to be scanned, they feel the texture and form of the red Turkish carpets depicted on the projection screens. Each cylinder is hollow, 5mm thick, 25cm wide, 120cm tall and 100cm apart. This thickness allows the internal glowing red and green lights to shine through the translucent Perspex and out the open top.*

Power, lighting and data cables run between each bollard under a 16 metre long curved flat bar steel platform running diagonally along the floor

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[866] The animal motif is also important for the political overtones inspired by George Orwell's *Animal Farm* and Pink Floyd's *Animals* which frequently mention sheep, as both were major influences on the socio-political tone of the work.

[867] Previous Designs included terminuses within rectangular boxes, cubic boxes, triangular boxes, within an arch, positioned parallel and beneath the screens, perpendicular and next to the screen and as vertical totem poles.

Figure E-249: Design#13 with the cylindrical bollards emanating from *Podium*, Josh Wodak. The two film sets are to the right of the diagram, next of which is where the two AVMS Operators and Interface Operators sat. The wall between them and *Room Womb* is invisible in this diagram.

Figure E-250: Design#13 showing a closer view of the open area at the top of each terminus, Josh Wodak. The colours of the quadrants show what colours they were lit up and where during *Sessions.*

The components are held together by screws which go through all the black circles

The red indicates a hole cut into the material for people to place their hand
Hand hole height: 1500
Hand hole width: 1630

This is the main cylinder. It is made up of one tube cut in half.

Main Cylinder:
Diameter: 2500
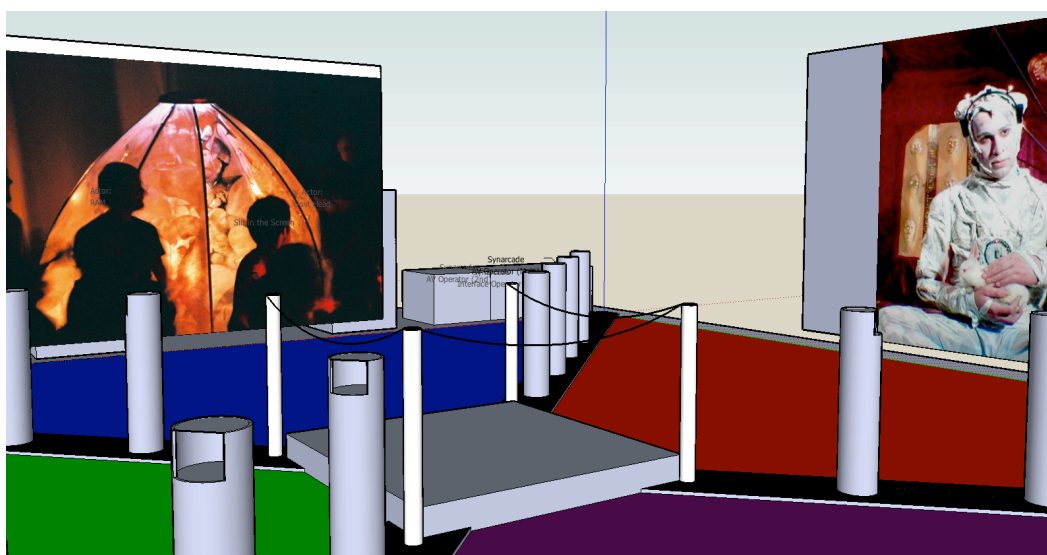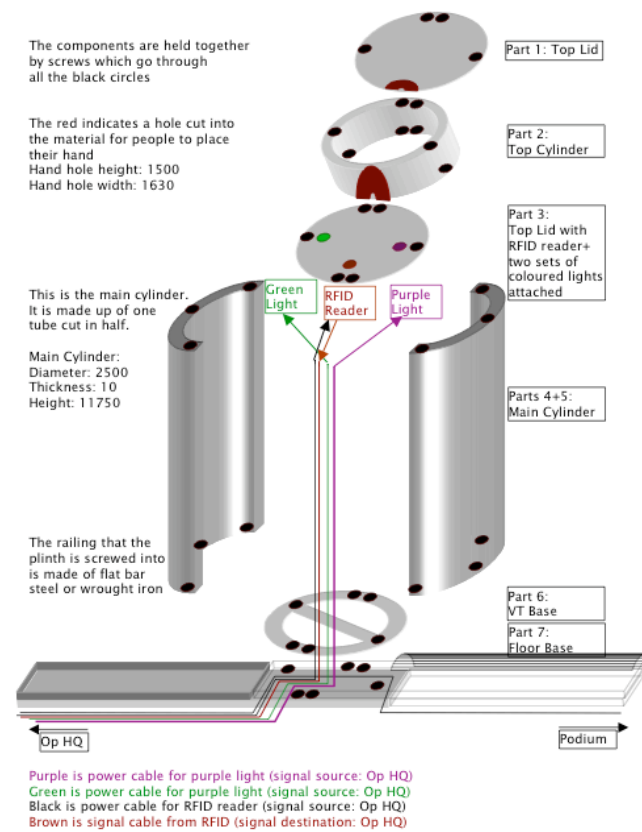Thickness: 10
Height: 11750

The railing that the plinth is screwed into is made of flat bar steel or wrought iron

Part 1: Top Lid

Part 2:
Top Cylinder

Part 3:
Top Lid with RFID reader+ two sets of coloured lights attached

Parts 4+5:
Main Cylinder

Part 6:
VT Base

Part 7:
Floor Base

Green Light   RFID Reader   Purple Light

Op HQ

Podium

Purple is power cable for purple light (signal source: Op HQ)
Green is power cable for purple light (signal source: Op HQ)
Black is power cable for RFID reader (signal source: Op HQ)
Brown is signal cable from RFID (signal destination: Op HQ)

Figure E-251: Side on view of voting terminus on mounting platform compartments, Josh Wodak
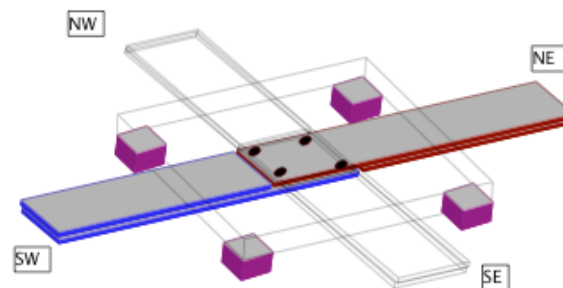
NW   NE   SW   SE

Figure E-252: The intersection of all four quarters underneath *Podium*, Josh Wodak

under 'Podium' (Figure E-251, E-252). *This platform is 5cm wide and 2cm high and protects the cables from being stood on. The underside of the steel bars are covered in carpet, to prevent any damage to the stage floor. This platform cannot be tripped over because there are no straight edges or hooks to get*

caught on when stepping over the platform. All bollards are structurally reinforced by being fixed to the platform, to ensure they cannot be tipped over if attendees lean against them. Each bollard is made of two vertical halves so for transport each is divided into two components which slot into one another. The structure is modular, lightweight and portable, so assembly is a straightforward process of screwing together the sections of each terminus, then each terminus to each platform segment, then all platform segments to one another. Disassembly is the exact opposite. All components stack into one another when in transit.

Attendees vote by funneling into the 'open' end of their chosen quadrant, that is the terminus closest to the screens. In walking past a terminus to vote, attendees move from the crowded quadrant interior to relatively empty neighbouring quadrants, as the two active quadrants are always opposite eachother. Bollards form temporary walls during 'Sessions.' They are only accessed from inside an active quadrant as voters cannot vote from the exit side due to the steady stream of voters exiting through the spaces between bollards.

Returning HAVICs is an instrumental part of 'Finale,' where voters take off their HAVIC to hang on a left or right arm of either 'Hoster-Drones,' who stand on opposite sides next to 'Podium,' with the Being standing inside 'Podium,' awaiting its' judgment. As voters have to approach the Being to hang their HAVIC on their preferred 'Hoster-Drone,' they literally face their Being, even if voting to kill it. Both 'Hoster-Drones' act as manual balance scales, as they tip (semi-humorously) in the direction of their arm with the most HAVICs hanging off it. 'Head' declares the winner by visually observing which arm of which 'Hoster-Drone' has the most HAVICs. Everyone being likely to vote in 'Finale' maximises the proportion of HAVICs returned before the staging ends, which is essential for evenings when the work is staged twice in succession. It also symbolically ends their embodied involvement, as they arrive unencumbered and begin by 'strapping themselves in for the ride' and unstrap themselves to finish.

Design#13 has the following meanings and references:

1) The cube at the top, deep red lighting and deep red carpeted walls resemble a scaled micro-model of 'Room Womb' that attendees stand in.

2) *'Fishing around' with a hand inside when voting refers to mixing chemicals in analogue photography development rooms, where images are 'born' from interactions between the chemicals and the paper.*

3) *When it is off, the cube refers to a 'black box' as "any complex piece of equipment, typically a unit in an electronic system, with contents that are mysterious to the user"[868] and magicians' 'black magic' regarding Parents and the DBS 'playing god' in genetically engineering the Being.*

4) *When it is off, the cube refers to a foreboding sense of probing the unknown, such as museums which have static objects (stuffed lizards, rocks and so on) inside black boxes which they get children to put their hands in to describe the object via touch. This asks voters to physically and intimately connect with a strange box that emits strange lights and sounds.*

5) *Such tactile and haptic nurturing via the interface is surrogate for caressing their Being in 'Screen Womb.' This comments on how human-human relationships are increasingly technologically mediated so that literal and metaphorical distances between humans can seem to be 'diminished' by technological intimacy and immediacy, such as screening 'impure' parents from insulated sick babies that require development time in plastic boxes and can only be touched through plastic gloves.*

6) *Placing a naked hand on a surface can register every persons' unique biometric data. Obtaining data by RFID reinforces how the DBS wants detached and depersonalised Government census type data, rather than in intimate, physiological data such as DNA from contact with a naked hand.*

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[868] *New Oxford American Dictionary.* Mac OS10.4, s.v. 'Black Box.'

E.4.2 Design#15

Figure E-253: Design#15, showing the projections of the bifurcating questions along the purple rectangles, and the arrows they used to direct attendees, Josh Wodak. Question one is on the right of the diagram at the North-East entrance and the last questions are on the left at the opposite walls. The voting terminuses are shown emanating from *Podium*. The four blue and green circles represent the places to stand to swipe one's *embrIO*.

As Design#13 could not incorporate DaP profiles, Design#15 re-conceived the spatial use of *Room Womb* to create a process by which DaP profiles were established and incorporated at the beginning of each staging.

DaP profiles are instrumental for individual and cumulative stagings as they allow for comparisons during and between stagings. Given the logistical and ethical issues involved, DaP profiles are obtained and analysed without offering trite and tokenistic understandings of attendees' values and opinions. This relates to re-conceiving the form and content via the Tools and Rules,[869] *as establishing majority versus minority in binary decisions at fixed pre-defined points does not reflect the complex relationship between attendees' DaP profile and their preferences for the Being.*

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[869] Described on p268.

As DaP profiles cannot be reliably established prior to the staging (by internet registration, telephone booking, or asking attendees to fill in their information at computer kiosks in the foyer), Design#15 comprehensively solves the challenges of obtaining DaP profiles while developing attendee engagement. Everyone is matched to their corresponding DaP profile by physically navigating bifurcating questions that shepherd attendees when they enter. Asking everyone the same questions as they enter symbolically levels the 'playing field' between all Parents. The process informs everyone of their parameters of interactivity and responsibility irrespective of having interacted with the pre-performance component, attended before, or having spontaneously walked-in off the street. The process chaperones attendees while they become acquainted with the 'Room Womb' atmosphere. To minimise distraction during this scene, 'Room Womb' is in a restive state with dim deep red light throughout and a projected mosaic red texture on the screens that expands and contracts in time with the sound of 'Ram' breathing while he and 'Head' sleep (Figure 6-180). Each successive answer filters them into progressively refined categories which lead on to their corresponding HAVIC.

The purple rectangles in Figure E-253 show where the questions are placed. Questions are written in LED lights on right-angled signs hanging from the ceiling at 1.5 metres height. The signs are automatically winched into the ceiling once all attendees have finished answering the questions so they do not obstruct 'Room Womb' for the remainder of the staging. Removing the signs completes the scene, after which the filmic exposition begins. Three metres from the entrance the first sign says: "Are you male?" on the right side of the sign, with an arrow pointing right, indicating to walk right to the next sign if that attendee is male. "Are you female?" is written on the left side of the sign, with an arrow pointing left. Each question directs attendees from the entrance to areas along the opposite walls that correspond to the cumulative combination of their answers.

Roaming the tree shaped narrative structure by answering the DaP questions spatialises the narrative by mapping the structure to the floor. Everyone starts at the entrance as the same homogenous embryo (represented physically by the entrance as 'trunk') and 'evolves' down bifurcating 'life paths' as an analogy to the work's progression. This hexstat probability model evokes the mobile hanging over 'Ram's' cot, which shows the sum of all

possible paths, past and futures as a 3D kinetic sculpture of fate and determinism (Figures 6-212, 6-213, 6-214, 6-215, 6-216). Everyone roams the narrative structure in two opposing ways: no co-operation is required when answering DaP questions, but in 'Session' questions voters negotiate as groups navigating pathways together. Temporarily separating attendees from those they attend with explores the extent to which those who come together vote similarly. The DaP questions show how to exert influence by moving through 'Room Womb,' which presages the crowd control protocols for moving around during 'Sessions.' Attendees' collective predicaments are also presaged due to posing DaP questions that, like the collective questions, do not have clear cut answers. As an example, one DaP question is: "Do you have free will?" – with an arrow pointing left if you do, and right if you do not. Everyone exercises 'free will' in responding to these forking paths, depending on if they exercise their free will to lie and take 'incorrect' paths to construct a different identity, given attendees' role playing as Parents. This yields patterns of emergent behaviour according to the variable probability of responses demonstrating bell curve propensities according to the proportion who voluntarily/truthfully answer each DaP question versus those who selectively lie versus those who abstain.

The last question leads them directly to the perimeter of 'Room Womb' where a thin 1.5 metre high horizontal wire stretches around the perimeter at waist height. One HAVIC for each attendee hangs from the wire. All male HAVICs are along the wall from SW to NW to NE. All female HAVICs are from NE to SE to SW. Each HAVIC has a pre-coded DaP. So if someone responds "Male>18-35 years old>Resides in Sydney>Public Servant>First time attending 'Emergence'>Possesses Free Will>Opposed to genetically modifying humans" they would be lead to the corresponding spot on the perimeter where a HAVIC has this DaP encoded into its' RFID tag. HAVICs are organised in colour coded DaP categories so they are easily placed in their corresponding locations after each staging. There is a surplus of HAVICs for each DaP category as it is impossible to predict how many of each category are required for each staging. Questions and DaP categories are adapted to stagings to adjust the micro and macro criteria according to specific ranges, such as schoolchildren

only stagings.[870] *Having donned their HAVIC attendees may roam around, including recongregating with the people they came with.*

Voting in Design#15 uses substantially less equipment, less costs, quicker assembly and disassembly and easier portability as it only uses infrastructure embedded in and emanating from 'Podium.' This gives the widest and least encumbered space to move around in. It achieves this by embedding 16 terminuses on moveable two metre horizontal rods that run between the metre high vertical poles at each 'Podium' corner. Each terminus on each rod is used in each 'Session' as the rods pivot 90 degrees (Figure E-253). The 10cm wide solid wrought iron vertical poles are fixed and immovable. The 5cm thick transparent Perspex horizontal poles are relatively light. Both are extremely strong, being structurally reinforced by a connecting X grid under 'Podium' (Figure E-252). As each rod only moves 90 degrees there is no cable slack. Cabling distances are extremely short, as all voting terminuses are near 'Podium.' One bundle of data, power and lighting cables runs vertically from the top of the NW pole through a clear 6cm diameter hollow Perspex tube to the roof and then to computers which process all votes. This cable bundle forms part of the set as the microphone participants use when interrogating and punishing the Being is mounted onto the vertical Perspex tube.

In-between 'Sessions' all rods are closed so there are no protruding rods. This square border around 'Podium' indicates that the focus in-between 'Sessions' is on the audiovisual media on the screens and PA, although necessary rods are opened and closed during 'Punishment,' 'Interrogating' and 'Finale' to allow climbing onto 'Podium.' When each 'Session' begins, 'Hoster-Drones' manually open the necessary rods. The manual cogs require 'Hoster-Drones' to insert a key to unlock each rod so they can push it into place. Rods are locked open or closed so they do not buckle even if leaned on, to prevent any rod movement other than by 'Hoster-Drones.'

Locking and unlocking rods to move them into their active position symbolically and theatrically creates walls and corridors between opposing sides. This refers to opening and closing a polling station on an election day. When options are in North-South quadrants the rods pivot so the terminuses
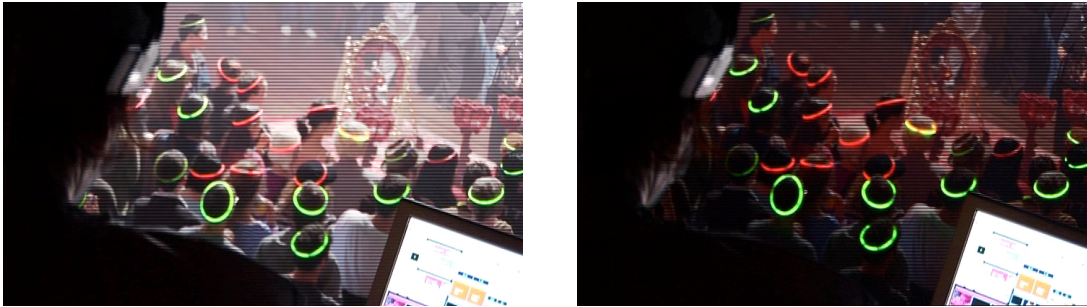
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[870] One of the first stagings in the Canberra season was for High School students only.

run East-West, with the terminuses parallel to the screens they correspond to. When options are in East-West quadrants, the poles pivot so terminuses run North-South. Each rod has two embedded coloured lights which match the two Screens that rod corresponds to. When it belongs to Screen North it lights up with the colour of Screen North and is parallel to Screen North. When it belongs to Screen East it lights up with the colour of Screen East and is parallel to Screen East (and the same for Screen South and West).

During 'Sessions' flat terminus rows divide 'Room Womb' into halves, affording the largest possible voting area for both halves. Eight terminuses face outward for each option. The number of terminuses can be doubled by placing them on the inside and outside of the poles, so voters access them from inside and outside of 'Podium.' This brings voters into close contact with their opposition as there is no separation between those voting from inside the 'Podium.' Voters move into their chosen area and join a queue leading to one of the terminuses. For crowd control, coloured spotlights indicate where to queue. 'Head' and 'Hoster-Drones' also shepherd voters to form four parallel queues (like a school assembly). Attendees vote by bringing 'embrIO' to within 5cm of the terminus. The same visual and graphic feedback as in Design#13 indicates their vote has been counted. With one metre between each terminus there are sufficient corridors for voters to exit after having voted.

The 'Finale' is the same as for Design#13, except their final vote involves placing their HAVIC on the rod corresponding to their preference. This automates the voting count for the last round. It also symbolises their spatial journey from being separated after all entering along the same entranceway 'tree trunk,' before branching out to their allotted spot along the room perimeters at the beginning and by the end congregating around 'Podium.'

E.5 Implementation and Presentation: Design#11

Figures E-254, E-255: The Interface Operator observing the computer monitor which calculated the number of votes according to the volume of green and red halo light in active areas during *Sessions*. E-254 is taken during the strobe flashes that immediately preceded the assessment, which is the instant captured in E-255.
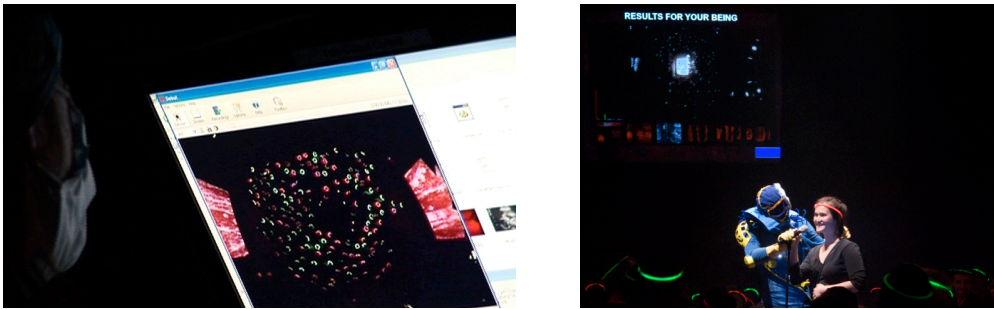

Figure E-256: The Interface Operator observing the computer monitor which shows the overhead perspective of *Room Womb* and the proportion of red and green halos in the different sectors

Figure E-257: The live projection of the voting tally is shown to the left of the photo. This tally showed the results for each *Session* and all *Sessions* combined, throughout the staging.
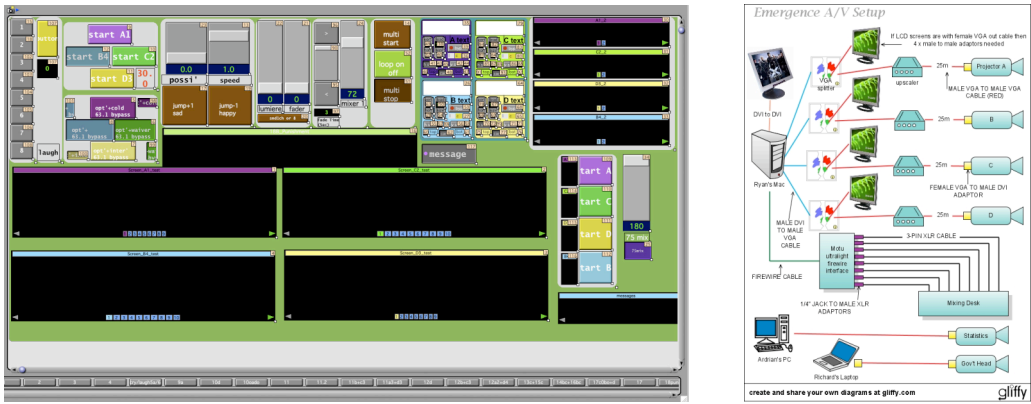

Figure E-258: Screenshot of the *Isadora* patch used to run the *v3* AVMS, Nev Black.

Figure E-259: Circuit diagram of the *v3* AVMS, Nev Black.

The largish and largely obedient audience was fitted with radioactive halos upon entry, colour-coded for gender, by a couple of faceless and jittery drones. Thank goodness I don't still look like a girl I thought. And wondered why the gender thing?

We were informed of the scenario by the head, then guided on our merry, 'choose your own adventure', way, a series of largely polar choices between personality characteristics with which to bestow our 'being', elected by the audience shuffling to one side of the arena or other. Each 'election' was proceeded by snappy video projections, swivelling from screen to screen, developing the themes of the string of choices as they evolved.

That's why we were colour-coded by the way. So we could see the ratio of men to women choosing one characteristic or the other, possibly an interesting sociological perspective, though personally, after the first couple I didn't move too far from where I was stationed.

Figure E-260: Shelley Winters. *Emergence at the Street Theatre* review[871]

Winters' review describes the voting design as used in *v3* stagings. Over 1700 people attended the full theatrical seasons at The Sydney Opera House Studio; The Street Theatre, Canberra; and Arts House, North Melbourne Town Hall in 2007. In Design#11, the implemented design, *Hoster-Drones* assigned thin cylindrical red glow sticks to men and green sticks to women as they entered *Room Womb*. The glow sticks were worn as halos for the duration of the staging. Participants voted by moving into their chosen area and standing during a *Session* they wanted to vote in. Voters remained in respective areas as it was not specified when the tally would be taken. As it was impossible to simultaneously fit more than 50 people per quadrant, voting areas occupied half of *Room Womb* when there were two simultaneous options. When there were three options, a 'Swinging Vote' or 'Undecided' sector was created in-between the two active quadrants (Figure 6-177, 6-178, 6-232, 6-233). The computer did not count the light emitted from the halos in these sections, as they were 'donkey votes.' A strobe light flashed in the three seconds before an arbitrary still frame was taken from cameras positioned above (Figure E-254), from which computers assessed the total amount of both

glow stick colours in all active area (Figures E-255, E-256). A live graphical tally indicated the number of votes for each session, as well as the results of each *Session*, so attendees could better judge *Ram* according to the genetic alterations they made over the course of the staging (Figure E-257).

Design#11 did not establish any UVI or DaP information, although gender proportions were obtained by calculating the amount of green and red halo light in active areas. The following are some examples of the quantitative data it produced for all 22 *v3* stagings:

1) "71% of Melbournians wanted their being to be more critical as well - this is compared to only 50% of Sydneysiders.

2) Sydneysiders chose their ideal being to be more empathetic (54%) whilst people in Canberra overwhelmingly preferred their being to be more critical (61%).

3) Sydneysiders very strongly wanted their ideal being to be an explorer (71%) whilst Canberrans strongly preferred a life-path of 'questioner.'

4) 67% of Canberrans, when given the choice, wanted their being to be more independent. However, for young people under the age of 17, this was only 55%."[872]

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[872] *'Emergence - Build Your Own Being' Project Website.* http://buildyourownbeing.com/lab/1.html. Accessed January 6 2010.
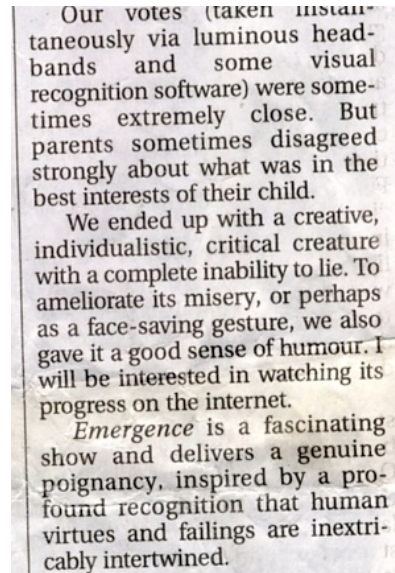
E.6 Summary

Figure E-260: Clare Morgan. *Playing God is a Serious Game on the Dawn of a New Creation* review,

Sydney Morning Herald, September 12 2007

As *v3* was not a work-in-progress, it did not solicit responses from attendees as *v2* had done. However the pre- and post-performance components on the website solicited hundreds of comments and postings from Parents' to their Beings, as each Being from each staging kept communicating with its parents in the online post-performance component. While not providing evaluative feedback, these comments indicate sustained engagement and empathy between many attendees, who desired to continue their experience online after their staging had finished.[873]

As it was much more widely publicised than *v2*, *v3* was reviewed in premiere Australian newspapers such as *The Sydney Morning Herald*, *The Age* and *The Australian*. As *v3* was so similar to *v2*, these reviews are interspersed in evaluating *v2* in Chapter 6, as the work-in-progress nature of *v2* was more amenable to comprehensive evaluation via the multiple sources of co-creators, SOH Studio staff, reviews, observation and participation in the feedback sessions and patterns of responses from over 400 Feedback Forms.

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[873] The 22 separate components (one for each staging) "received 2208 visits" as of December 2007. *'Emergence - Build Your Own Being' Project Website*. http://buildyourownbeing.com/lab/1.html. Accessed January 6 2010.