Performing Science:
Blurring the boundaries between art, research and academic communities

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Abstract

When and where does the art performance stop? Are there boundaries? One could say that art has no boundaries. The act of doing, of creating, and each process, is experienced aesthetically. One can say that the aesthetics of our actions can be viewed as a series of unique artistic and genuine experiences and expressions. Through these aesthetics a narrative unfolds, action turns to progress, and consciousness expands and morphs with each portion of new knowledge. Once we start seeing our lives and its contents as a part of this artistic experiential process it is impossible to disconnect one action from the other. Consciously, as an artist, after intentionally opening the art performance, there is no way of determining what it includes, and more importantly, what it excludes. This paper discusses a performance project that was initiated in 2004 called *The Researcher. The Researcher* began as a probe into academia as an institutional system, which constitutes and reconstitutes itself through the rigor of categorization, critique and measurement. Here, science is a performance of simultaneous positivism and constructivism, structuralism and deconstructionism.

INTRODUCTION

> While the sciences and their technologies, proliferating wildly, seem to assimilate more and more of our social, economic, ecological, and aesthetic reserves, they have also increasingly withdrawn into their own specialized styles of articulation, consorting exclusively with their chosen forms of so-called facts and figures and actively rejecting any "humanistic" tracking of their ideas as "uniformed." (Case, 2007, 1)

The above quote was taken from Sue Ellen Case's (2007) introduction to *Performing Science and the Virtual*, a timely and critical anthology regarding the societal and institutional function of science and how it is currently played out through the virtual. The anthology includes great consideration for both the history of science, as well as major historical players, and ads the critical gender studies lens to critique the discourse of its development. Case's point is that through language its articulation and how it is connected to specific matters and contexts (see language games, e.g., Ludwig Wittgenstein & Gertrude Elizabeth Anscombe, 1958, or semiospheres by Yuri Lotman, 2001) the fundamental element of science which establishes its stronghold over society is its performance. This characteristic rests at the heart of this paper, which through autobiographical accounts of the author's artistic and scientific developments, conceptually analyzes (Jackson, 1998; Saariluoma, 1997): art as a knowledge production and learning vehicle; art and its adoption of scientific techniques to both critique science as well as establish societal commentary resting outside the conscious scientific paradigm (such as consumption and animal activism); and the abidance, adherence and enactment of scientific rules and procedures in text and verbal, social and institutional discourse as a performance.

Through this stance also, the dichotomy of art and science is problematized, as the paper begins by describing art as an inlet into academia, and that by entering science through art - and the nature of

art in general - entails that all scientific engagement can be and is performative, artistic engagement. Besides the examples discussed in relation to SymbioticA and their collaborations with Stelarc, this paper looks at science, or academia in general, from the perspectives of the social, psychological, cognitive, emotional, technological and supposedly measurable. It draws on examples by artist Marc Quinn and a European funded project called EUBORDERSCAPES to view the intrinsic relationship between performance and even the human sciences – not just the explicitly articulated relationship between art and the natural sciences as emphasized by SymbioticA.

The paper looks at the repercussions of opening Pandora's artistic box, whether critical, creative or performative, to describe how through an *artistic way of knowing* (see, e.g., Mäkelä, 2007) the *artist* is always a part of any process.

To this extent, in *Art as Experience*, pragmatist John Dewey (1934/2005) describes the aesthetics of experience as the art of everything. The act of doing, of creating, and each process, is experienced aesthetically. One can even go as far as to say that the aesthetics of our actions can be viewed as a series of unique artistic and genuine experiences and expressions (Adorno, 1970; Shusterman, 1992). Through these aesthetics a narrative unfolds, action turns to progress, and consciousness expands and morphs with each portion of new knowledge. Likewise, once we start seeing our lives and its contents as a part of this artistic experiential process it is impossible to disconnect one action from the other. Consciously, as an artist, after intentionally opening the art performance so to speak, there is no way of determining what it includes, and more importantly, what it excludes.

Figure 1 describes the structure of the paper, beginning with the narrative of art as an entrance into academia and science. Here, art is described both in terms of its functional qualities in information processing, as well as its emotional function of enticing the otherwise, less confident individual towards engaging in academic discussion, learning and research. This is followed by encounters

with players in the act of art-science symbiosis – SymbioticA, Stelarc, Marc Quinn and EUBORDERSCAPES. These examples give a cross-section of creative practitioners engaged in either the natural sciences for artistic purposes and critical commentary, or artists whose work crosses the disciplines of academic research to establish a performance in which the domains of art and science are quite obviously inseparable. *The Researcher* and the art of performing science is introduced and described through the narrative of political academic discourse, which for the most part played out in the Australian cultural political context, yet carried on as a critique of the exclusive process of semiosis and repetition encountered through years of studies in both cultural studies as well as teacher education.
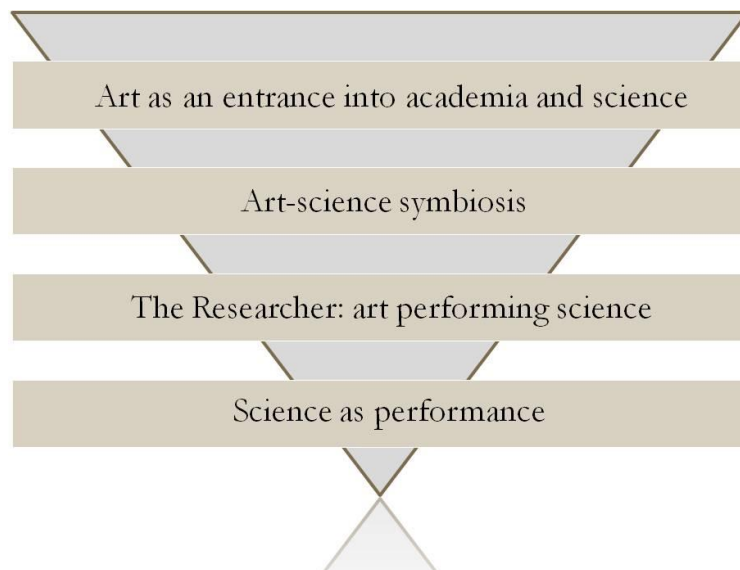
Figure 1. Structure of paper from academic entrance to performing science

Science as performance returns to the critique of science as a performance, and looks at the artist/author's current practice within the field of human-technological research. The conclusion draws on the self-constitutive, iterative and regimented processes of investigation, confirmation and representation (not always in this order), to understand the situatedness of contemporary *human-centered science*. The conclusion is intended to confuse and suspend. There is no real conclusion as the performance lives on. It seems beneficial, once in a while however, to step back, isolate and

identify common mechanisms facilitating its operationalization, in order to continue and develop its processes in a more critical fashion.

Art as an entrance to academia and science

There is substantial research demonstrating how the level of education achieved by parents as well as socioeconomic status corresponds with the academic achievement of children (Davis-Kean, 2005; Klebanov, Brooks-Gunn, & Duncan, 1994; Haveman & Wolfe, 1995; Smith, Brooks-Gunn, & Klebanov, 1997), and the likelihood of them continuing onto to higher education (Tinto 1975; Wahl & Blackhurst, 2000). Among other issues, these studies highlight the way in which children or youth from backgrounds in which either one or both parents have not completed either secondary or tertiary education, are less likely themselves to complete secondary or tertiary education. Thus, it may seem understandable that while the attitudes and beliefs of the author's parents have played a great role in encouraging her to graduate from highschool (Davis-Kean, 2005; Kimerson, Egeland & Teo, 1999; Kohn, 1963; Luster, Rhoades & Haas, 1989), factors such as self-esteem and self-belief in terms of the capacity to undertake and successfully complete a university degree from the perspective a low socioeconomic background were traditionally extremely low.

After gaining substantial work experience, combined with undertaking single-standing university courses, the author finally decided to apply for a degree in visual art. Although there had never been the desire to pursue art as a career – quite the contrary, interests were held in law and drama – the author had excelled in highschool art, and knew that if anything, she should at least be able to pass the necessary subjects of the degree, to a successful level. Something that had never even crossed her mind was the fact that university visual art studies do not necessarily entail specifically focusing on visual art, art history, its techniques and exhibition practice. Rather, the visual art degree in question focused on developing conceptual artistic practice and criticism, and centered on

theoretical investigations based in critical theory, identity politics, design, and intellectual property law (arts law). Art was in essence a vehicle through which research (academic and otherwise) was undertaken – background research and topic scoping, literature reviews, academic writing, visual expression of findings, as well as audience engagement and provocation.

Thus, art was the author's inlet from a lower-educated, lower-income, lower-self esteemed background into the world of science and academia. This is not necessarily a unique experience. The capacity of art to engage, encourage and empower students from diverse backgrounds in education has already been shown (Cohen & Gainer, 1995; Gasman, 2003; Nobori, 2012; Rubenstein, 2006; Schwartz, 2015). Subsequently, initiatives exist in which contemporary artists reach out to children and youth, particularly from at-risk backgrounds (see e.g. Sea of Glass , Sheila Fortune Foundation, and the Time in Children's Arts Initiative). Public outreach through art is not simply a means of getting children and youth involved in organized activities, but art also serves to motivate and prepare young people for engagement in other areas of life and society, such as academia and for example health education and awareness (Davies, Knuiman, Wright & Rosenberg, 2014; Gasman, 2003; Yonas et al., 2009).

In fact, research has revealed that there are strong connections between artistic expression (sketching, music, writing, dance etc.) and cognition (Efland, 2002). There are vast and diverse theories regarding this relationship, some attributing this to the capacity of artistic expression to process, operationalize, reorganize (make-sense of), articulate and reproduce the information that is encountered in a range of contexts (see e.g. Bilda, Gero & Purcell, 2006; Kavakli & Gero, 2001; Schlaug, Norton, Overy & Winner, 2005; Tversky, 2002). Thus, from the perspective of cognition and particularly learning, creative practices are valuable for encouraging development in e.g., pattern recognition as well as in the articulation, or reproduction and reconstruction of knowledge

(Borgdorff, 2011, 2012; Cohen & Gainer, 1995; Toussaint, 1978). Moreover, emotionally the prospect of art (visual or otherwise) from the perspective of it being *soft* and *easy* (Efland, 2002) mentally primes those who approach it as a subject, as something that will be fun and perhaps less intellectually challenging, than say mathematics or chemistry — domains that are historically primed as difficult and predominantly masculine (Case, 2007). Thus, these emotional qualities, or lack of psychological boundaries, encourage engagement and increase motivation even among those who would not consider committing to academic practice otherwise.

Furthermore, it should not be surprising that through the latest movements in education, e.g. STEAM (Science, technology, engineering, art and mathematics) art is officially acknowledged as a crucial component in instilling knowledge of what were traditionally considered positivist sciences, through developing skills and strategies in creative thinking and problem-solving (Radziwill, Benton, Moellers, 2015). The STEAM approach is particularly instrumental in bridging gaps between societal groupings i.e., gender, socioeconomic backgrounds, and cultures (Hill, Corbett, St Rose, 2010), in order to promote the equity that until now STEM subjects have so sorely lacked. For all these reasons, art was the author's gateway into academia, towards research which mostly centered on critical theory, identity politics (and Australian history), intellectual property law and design history. This then, by chance and accident evolved into a career as a human-technology researcher specialized in semiotics, eventually resulting in a doctoral thesis and postdoctoral position as a cognitive scientist. The next section gives an account of the events leading towards this situation, which is then followed by recollection of the development of *The Researcher*.

Art Science Symbiosis

Art feeds science, and science feeds art. Both are a continuous performance by those who are aware of these deliberate processes of articulation (Grossberg 1986, 2014), as well as those who are not. In

art school, the author had the privilege of becoming acquainted with the work of the SymbioticA team, at the University of Western Australia. On its 'About Us' webpage, SymbioticA is described as a constantly evolving site for artistic investigation, in which artists can work, research and learn in the space of a scientific laboratory, as well as critically engage in the life sciences (SymbioticA, n.d.). SymbioticA was founded by Professor Miranda Grounds (cell biologist), Professor Stuart Bunt (Neuroscientist), and Dr. Oron Catts (artist). The founding of SymbioticA was closely connected to work undertaken by Catts and Assistant Professor Ionat Zurr, who had been engaged in the Tissue Culture and Art Project (TC&A) since 1996.

TC&A was initiated during an artist and researcher residence period at the School of Anatomy and Human Biology and the Lions Eye Institute, University of Western Australia (SymbioticA, n.d.a). TC&A was pivotal from the perspective of the author's art practice, in that it was through these works and practices that she became familiar with SymbioticA as a group, and most importantly, aware of the conscious interplay between the paradigms of science and art. Through seminars and exhibitions, as an art student, the author encountered projects such as *Pig Wings* (2001-2002), various pieces at the BioDifference (Lawrence Wilson Art Gallery) exhibition of BEAP (Biennale of Electronic Arts Perth) in 2004, and Stelarc's *Extra Ear* as well as *Extra Ear ¼ Scale* presented at various events such as the National Review of Live Art, Perth (2005).

The TC&A Manifesto (SymbioticA, n.d.b) explains how the goal of the project was to examine the ways in which tissue technologies could be utilized as a means of artistic expression, and that through this, people's relationships to various levels of life could be explored. This was achieved by the establishment and cultivation of new types of organisms (objects/beings) that can be classed as semi-living. Through these semi-living objects or beings, understandings of identity, self, the role of humans in the world's and environmental ecosystems, and the idea of life as a concept in general

were probed and questioned. The forms and methods which were adopted to undertake these explorations, not only reflected practices of the past and present, but also served to offer a glimpse into the future of artificial genetic and organic modification and enhancement – undoubtable consequences of commodification gone extreme, our very probable future.

This is expressly reflected in the work and statements of Stelarc, whose prosthetics projects play out the extremities of excess. In Stelarc's work we see the *Extra Ear* and *Extra Ear ¼ Scale* (1997-1999) as well as other articulations through e.g., his *Prosthetic Head* (2003-2004), *Stomach Sculpture* (inserted technology)*, Third Hand* (attached technology) and *Exoskeleton* (extending technology). In this work, prosthesis is not to compensate deficiencies, deficits and malfunctions, yet rather to express abundance (Stelarc Extra Ear, 1997-1999). Stelarc here, critiques technological development and more important the culture that drives it towards augmenting the body and its performance for commercial goals. This timely critique, although already taking place during the 1990s speaks of our current social, political, economic and most importantly for the purposes of this paper, academic technological climate (Case, 2007). As Kevin Warwick (2003) so aptly puts, "[t]he era of the Cyborg is now upon us" (p. 131). While the point of his article is to highlight the nature of Cyborgs as working against humanity rather than for it, we can see on a broader level, that the reduction of academia, and particularly the *human-driven* sciences (cognitive engineering and other technology based, so-called human-centered fields) to propelling and extending the idea that the closer people are connected to technology (particularly information technology), the better it is to serve them. This ends up, in the long run attaching people and their scholarship strictly to information systems, in design, production and consumption. Ironically, this idea is both intrinsically and extrinsically present in earlier human-computer interaction and cognitive engineering, which in one way or another treat humans as a component of the computer, liking the mind to a human symbol processor (see e.g., Card, Moran & Newell, 1983).

The implications of this commentary are especially important for the future life of *The Researcher* to be explained in the final section of this paper on performing science. Yet, quickly it can be mentioned that in a similar vein to Andrew Feenberg's (2005) Critical Technology Theory, through the consumption of augmenting technologies, despite marketing which states otherwise (e.g., rich user experiences, memories, highly personalized etc.), through these technologies the power-control relationship within society becomes stronger. Life is reduced to not only excess, but efficiency and control, and actions are judged according to their technical competency and appropriateness to the overall technical system. What is more, Stelarc's work resonates with the aspirations of scientists such as Joseph Carl Robnett Licklider (1960) who described the future of a man-machine symbiosis in which both people and machines would be mutually dependent.

The work of Marc Quinn can be seen on the one hand as a contrast from the highly specific, technological and biotechnological emphasis expressed in both Stelarc and SymbioticA's work. Marc Quinn's work is quite highly personalized, while also intending to describe the relationship between art and science (Marc Quinn, 2016a, n.p.). In particular, his work focuses on the body, its aesthetics and perceptions of beauty and through material exploration explores issues relating to life and growth cycles, evolution, genetic manipulation, identity and death. One series of interest from the perspective of this paper is that of *Self* (1991-present). *Self* was initiated by Quinn during the height his alcohol dependency (Marc Quinn, 2016b). It was driven by his need to articulate the compulsion to be attached to, or plugged into some external source in order to survive. This is expressed specifically through the nature of the materials the work comprises - ten pints (4.7 liters) of Quinn's blood, cast in the form of Quinn's head submersed into frozen silicone, requiring constant freezing (electricity). Every five years Quinn iterates this process, resulting in another bust

which reflects the changes that have physically taken place in these facial features over the five year duration.

The issue of dependence is potent from numerous perspectives including: the drive for man-machine (electricity) dependency discussion raised in relation to Stelarc's work; the synthesis of materials from human blood to the highly synthetic silicone and its potential to either live on way beyond the artist's passing or perish through technical failure of the technology keeping it in its current form; on this note, the series reminds of processes such as cryogenics, the freezing of the body for possible reawakening many years after passing (excess, commodification of life, and associated socio-organic inequalities of who can and who cannot); and finally, from the perspective of *The Researcher*, the idea of technological design based on life. This technological design, firmly attached and/or closely connected to life, follows life and adjusts itself for differing physical circumstances people (users) find themselves in - for the most part through ageing. This also is tightly linked to notions of life-long learning, whereby people throughout the course of their lives are kept in the loop of the evolution of language games (academia), practices and technological ways of being.

The last example, EUBORDERSCAPES, once again takes a different approach to this science-art, art-science relationship as it is realized through a European funded project that intended to examine the significance, developments and conceptual changes of border research in a post-Cold War World, focusing on economic, social and geospatial transformations coming to a completion in May, 2016 (EUBORDERSCAPES, 2016). The specific Work Package in question - "Border-Crossing and Cultural Production" - expressly focuses on the way in which politics and identity are performed through culture and its aesthetics. In particular, Johan Schimanski (2016, n.p.) argues that

- there is a politics-aesthetics nexus, and that border imaginaries are intimately connected with aesthetic activity - the language of aesthetics and its role in articulating and transforming spatial imaginaries (rules, customs, practices, beliefs and policies);

- there is a place for genealogy when explaining border policies (Brambilla, 2004);

- and a methodological approach is needed, which entails the political, the participatory and the performative.

This project thus represents the construction, analysis and reconstruction of the performative within both political and academic discourse. It is an academically hosted and facilitated project, that includes in its mission the systematic and methodological isolation of performative, cultural and aesthetic elements, in order to understand and then reconstitute them, within the cultural-political landscape of a post-Cold War World. If not an artistic piece, this does show the careful and conscious discourse within the academy, for critiquing and influencing the political and social outcomes of the future - whether that be academic, political, cultural, social or all of the above. This leads into the introduction to and discussion of *The Researcher* - an academically born and bred project designed to exist as a part of, and in critique of a positivist view towards the sciences, research and education in general.

The Researcher - art performing science

While art was an entrance point into research, the deeper the research developed, the more research gaps and questions began to arise from both the literary discourses studied. This was in addition to the verbal-performative discourses played out within the academic setting, in relation to both the behavior of the performers, and those who were present to perform. In particular, there seemed to be a *lack of grey*, or *third space* as Homi Bhabha (2004) would have put it, enacted and demonstrated through our critical discourse. This lack of grey, seemed especially prominent in critical theory, and post-colonial studies discussions covering topics such as the "West and the

Rest". Often, it appeared that while the Rest indicated those othered, excluded and alienated from the realm of whiteness, that is all who remain outside the white norm and were either invisible (not represented) or too visible (represented via negative and derogatory stereotypes) depending on the approach (Dyer, 1997), the West was a homogenous, privileged white. Moving into more detailed specifics, one could say that the West was played out by white, Anglo-Celtic, Caucasian, higher educated, affluent, middle-aged men – those who were/are the colonizers of all. Never mind the fact that on a practical level most engaged in the discussions fit the profile of at least being of Northern European origin, Caucasian, educated and approximately middle-class. Again, on the practical level, *The Rest* was represented by the minority of perhaps a few academic staff members and some students. The absurdity of the situation in which, generalizations and stereotypes were problematized through operationalizing further generalizations and assumptions, by those who in essence were either stereotyping their own being and behavior, or ignoring their own existence and relationship to the subject matter, sparked the desire to comment. *The Researcher* had to be born, if not as someone who could change discourse, at least as someone who could become a part of it, aware of its mechanisms, and able to manipulate it in a range of diverse styles and contexts.

The Researcher began as a probe into academia as an institutional system, which constitutes and reconstitutes itself through the rigor of categorization, critique and measurement. It was an attempt to articulate the often invisible mechanisms of subordination and exclusion, which are many times reinforced through its apparently objective stance of social and cultural deconstruction, and self-iteration. *The Researcher's* performance began as a photographic series, and was planned as a lecture (see Figure 2) using Germaine Greer's (2003) *Quarterly Essay 11 Whitefella Jump Up: The shortest way to nationhood* as a starting point. Greer's essay was published at a time when the author was highly sensitive and responsive towards the power relations between Indigenous

Australian communities and the rest of the population, particularly regarding matters of appropriation, re-appropriation and outright plagiarism (theft).
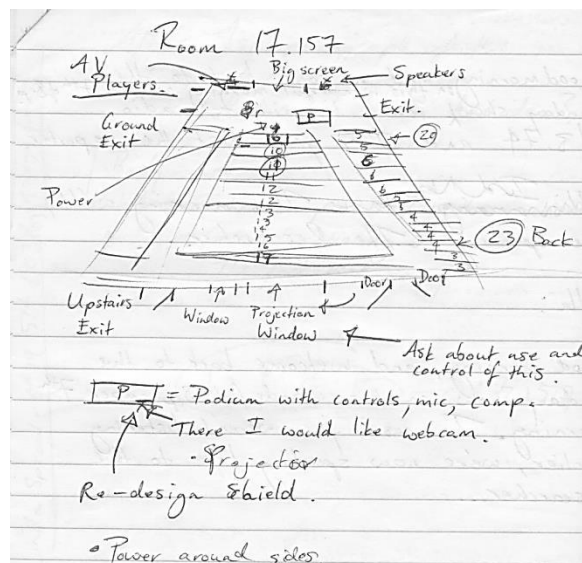
Figure 2. Plans for *The Lecture*

The author's concern was for the fact that many of the non-Indigenous population were aware of the inequalities faced by the country's original population, yet that the way in which this concern could be addressed could very well end up once again in removing the voices from, or talking on behalf of those who have already been displaced. Sure enough, in promotion of her book, Australian-born and globally known academic Germaine Greer, announced on national television her intentions for Australia to become an *Aboriginal Australia*, that we live in an Aboriginal country, and in the book, for us to speak a form of *Aboriginal-Australia* creole[1].

The problem with this firstly being that currently there are around 20 language families spoken by people in Indigenous Australian communities (McConvell & Thieberger, 2001), and from a research perspective, this could have been solved by a quick Google search or consulting representative members of Indigenous Australian communities. Then, on a more practical note, this raises the questions of: Which language(s) should be spoken? Why and chosen by whom for what

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[1] One such interview was on a television program called *Enough Rope* with Andrew Denton (Episode 27, 2003), where Greer talks of the Aboriginal country idea (http://www.abc.net.au/tv/enoughrope/transcripts/s946782.htm).

reasons? Secondly, as there are so many languages spoken by members of Indigenous Australian communities (although in steady decline), there are also approximately as many lands (or countries) in the European understanding (not necessarily translatable to the laws of Indigenous communities). Thus, should each of the local land languages be the languages of those land areas? Thirdly, usage of 'Aboriginal' or 'Aborigine' as terms is derogatory. Contemporary artist Gordon Bennett had spoken openly about its connotations for being 'ab' (sub, or lesser) 'original' (McClean & Bennett, 1996). Then finally, something that Bennett had also discussed and instrumentalized throughout his work, is the act of appropriation, the act of adopting and repeating intellectual and cultural property – of visual forms and patterns without understanding their semantic and cultural value, and most importantly, appropriation of language.

These were elements which were very carelessly and publicly overlooked by Greer, an academic performer with the power of the voice on a national and international level, which were also painfully embarrassing for reflective non-Indigenous members of the Australian population. To consolidate this experience, and highlight the way in which these generalizations and assumptions are made on a daily basis within academia, and even critical academia, a lecture-performance was scheduled under the name of *Whitefella Sprout Up - the lecture*. Accompanying the performance, would be the release of an essay *Whitefella Sprout Up – the quickest way to planthood* (see Figure 3), the title an attempt to capture the same flora-fauna treatment in a new package. A lecture theatre and equipment were booked, publicity material, including a website, had been created, the script was finalized. The date drew nearer, but more and more recommendations were made to cancel the lecture. As the result of careful consideration and negotiation, *The Lecture* was postponed, and the focus of the author's artwork was redirected towards the *safe* and less direct option of the built urban Australian environment, architecture and (post)colonial institutionalism in general in a photographic print and video series called *Washed Blocks* (2004-2006).
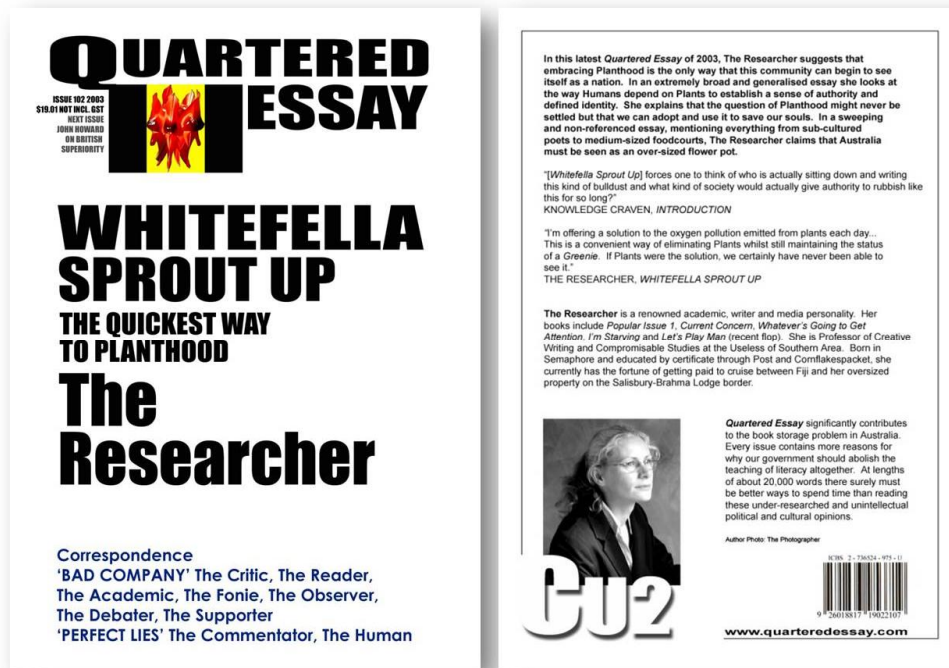
Figure 2. Back cover of *Whitefella Sprout Up* - publicity material for *The Lecture*

In 2007 however, while in the process of writing two theses – one in cultural studies which combined critical (gender) theory with postcolonial theory in the context of Finnish design history, and one on multiculturalism in the context of adult teacher education – inspiration struck to rekindle *The Researcher* project. *The Longest Lecture Marathon – the world's longest Power point presentation* was conceived. This was to be a 27 hour Power point presentation on cultural studies and lifelong learning. In addition to a compilation of substantial amounts of slides from cultural studies and life-long learning, the Power point presentation additionally included extensive material about semiotics. This was not a conscious continuation from where *The Lecture* had left off, yet it was generated from the same itch, or urge to say something from within the throngs of discourse. The repetition, the jargon and the empty signifiers in the same vein as terms such as 'innovation', 'creative', 'novel' and more specialized cultural studies terminology, as well as of course the idea of e.g., lifelong learning – what it says and does not say about engaging people in institutionally structured education for the rest of their lives, or even who it includes or excludes from its reach –

made it apparent that *The Researcher* was once again needed to consolidate, process, abstract and publicly execute the discourse the author felt trapped in.

Why so long? Because it is so long – it is never ending and undoubtedly a symptom of the postmodern, postindustrial human condition. From the perspective of an artist whose mother took three attempts to overcome the nerves to enter an adult education facility to enroll in a food handling course, it seemed like the right approach. Thus, once again, the author turned back towards the social, physical and cultural structures of institutionalized learning and academia, and attempted to fold it – discursively and performatively – it against itself. Its absurdity and abstraction were direct attempts to intimidate and exclude from the context of the classroom (the setting of the performance), while there were no expectations of who could possibly stand to watch the recital of poorly executed and overly cluttered Power point slides for any amount of time.

The Longest Lecture Marathon was first performed at the ANTI Festival, in Kuopio, Finland (see Figure 4). After initial plans for simply reading the slides for 27 hours, it was soon discovered that if these slides were read at normal pace, there would not be enough for the duration of the performance. Impromptu, the author began to slow the pace, dissect not simply the sentences, but the words into compounds and syllables, and explain each one. Here, semiotics was reduced to a literal analysis of the foundations of the words, concrete turned into cement, and education evolved from an umbrella into a magic mushroom. The piece was described as "Confusing, heavy, interesting, connected" (ANTI Contemporary Art Festival Kuopio, 2007). Later on when performed at the KUNSTENFESTIVALDESARTS in Brussels, it was likened to John Cleese "in Silly Lecturing at the University of Totally Trivial Pursuits…" (Lathan, 2008). However, when the author returned to work, which was by then as a lecturer in cultural studies, she realized she had been subconsciously imitating some key colleagues.

Figure 4. *Longest Lecture Marathon*, **ANTI Festival Kuopio 2007 (image by Pekka Mäkinen, 2007, courtesy of ANTI Festival)**

The *Longest Lecture Marathon* had been a release. It was both therapy and a break out of the boundaries of some heavily instilled language games. *The Researcher* as a whole had been established as a retaliation to directly said, racism and class-exclusivity which was rife either overtly or implicitly throughout the layers of organized learning and research that the author had been involved in during the course of her life. Even at the date of conception during 2004, *The Researcher* had been performed in classrooms, lecture theatres, laboratories, libraries, meeting rooms and storage rooms across the world. *The Researcher's* performances had already been undertaken, excessively and repeatedly in everyday learning and research situations. Without too much formal visual documentation, tracing her actions, the main sources of proof that she has been present and in action, is through the certificates and publications she has accumulated over the years. The content of her lecture focused on the then timely topic of "Culturalism in integrated Lifelong Learning" (ANTI Festival, 2007, n.p.).

Since 2009, *The Researcher's* lectures have been contained to local gatherings – programmed courses and one-on-one student supervision – while she has continued her research in the realm of human-technology interaction. The boundaries between art, design, science and academic scholarly standards overall are not only blurred, but dynamic – constantly interacting between iteration and genuine experiences of insight and epiphany. Yet, *The Researcher* has focused on perfecting these standards, adhering to rules and conventions, and has trialed known and proven interaction theories in the most reliable and valid ways.

Science as performance

The term performance, has often been adopted during recent times to describe the social, political and of course, scientific manifestation of technoscience, or the science of technology (Busch, 2007). This can be seen among scholars such as Warwick (2007) and Donna Haraway (2006) who have focused on cyborgs, their speculations on cyborgs regarding the future of humanity, and observations of cyborgs as a physical technological manifestation between humanity and the consumerist machine. Haraway in particular, uses the cyborg discussion to comment on the roles, representations and reproductions of gender in scientific technological discourse, which can quite easily be connected to works by Teresa De Lauretis (*Technologies of gender*, 1987), and discursively to those by Judith Butler (1988), whereby the performative acts representing, repeating, iterating and constructing gender are also closely connected to technological developments in societies and cultures. Excitable speech (Butler, 1997) in itself can be seen as a main driver in discursive constitution and paradigm construction, or reconfiguration - depending on how it is viewed. In turn, excitable speech characterizes the epitome of hype (e.g., 'digitalization', 'information society', '21st century skills', 'ubiquitous', 'embedded' and an old favorite, 'innovative'), being not only present in speech (public, private, social, professional etc.) but also in text in academic, political and commercial circles.

Stephen Hilgartner (2000) has argued that technoscience comprises an 'on stage' nature, which can be observed across societal domains, none the least academia. Hiltgartner had analyzed report-making processes in the context of the US National Academy of Sciences, where he observed the cultural production and hype surrounding the release of scientific reports: the front-of-stage elements including the actual report, media releases and launching events; and back-of-stage components such as disagreements and criticism (technical and content-based) as well as disputes over intellectual property and rival behavior. Scientific performances have even been categorized in terms of types of performances and for what purposes (Busch, 2007). For example, Bruno Latour (1987) and Karin Knorr-Cetina (1981) have articulated the distinct performances played out in the laboratory, as opposed to those exhibited in scientific articles. Lawrence Busch (2007) describes these differences as including: the character of scientific articles as written in third person; and laboratory experiments being carried out by themselves, minus the intervention of human beings. This is one of the key points of *The Researcher* in her commentary of the academic institution in its 'magic cloak' service, providing invisibility and immunity for players, within its borders, adhering to its language games (Wittgenstein & Anscombe, 1958), to not only categorize, measure and conclude based on sets of parameters that other groups of magic cloak wearers have established, for whatever motivations, but also the magic rug of critique, the ability to hover over any and all societal positions and point out where the power imbalances lie.

At this point in time, after engaging in human-technology research for the past seven years, *The Researcher* is gradually learning the art of the article performance (Busch, 2007), its formula, as well as its set of rules which not only dictate how to measure and conclude, but also how to understand the results before experimentation begins. Thus, the scientific acts of measuring, testing, categorizing, comparing, and especially the pretense of statistical analysis to find mind-blowing significant differences and interactions, can be viewed under this performance metaphor (Busch,

2007; Power, 1997; Salter, 1988; Strathern, 2000). Performance being in the cultural sense a composition, creative, literary or artistic piece (*definition d*, Oxford English Dictionary, 2016), or in the academic and institutional sense, the standard or quality of execution of an act, process or function, combined with the competence and/or effectiveness of a thing or person performing the act (*definition b*, Oxford English Dictionary, 2016).

Following on from the above observations, and perhaps a sign of our times, is the performance of citation. The domain Google Scholar citations with its citation count, h-index, i-10 index and histograms, has opened up a whole new world of interactions and performative acts, not simply between scholars and groups, but within scholars. Some hit blogs (of course there are also blogs performance) and articles of late, have been specifically about this, such as: "Publish or perish: Improving your H-factor made easy through PleaseCiteMe.com" (Wals, 2012); "Will this paper increase your *h*-index?: Scientific impact prediction" (Dong, Johnson & Chawla, 2015); and "Effective strategies for increasing citation frequency" (Ale Ebrahim et al., 2013) to name some. These authors are becoming hits, not simply because they are making ground-breaking observations, but more because they pose performative value for the readers – the objective of the scientific reader (performer) to gain visibility, external peer-driven verification, and of course own validation of performative effectiveness. This is instilled by advice promoting the quotation of one's own work in every single paper as often as possible (Dem, 2014). As evidence of the popularity, this paper posted in Academia Edu has already attracted 44 691 views as of May 18, 2016.

Thus, thanks to the do-it-yourself global media exposure scientists now have, the audience of scientific activity has expanded to include not simply the regulatory agency of policy and other decision-makers, legislators, general public and mass consumers, but also the scientists themselves - repeating, reconstructing, reiterating and reframing their own work and names time and time again.

This entails that science performances in today's digitally connected world are presented on three main 'stages' (Hiltgartner, 2000): the laboratory; scientific texts and their associated events (launches, conferences, seminars etc.), conflicts and rivalry; and in cyber scholar number exhibition. *The Researcher* appreciates this perspective and in particular its efficiency, instilling a framework for quality of performance (Boltanski & Thévenot, 1999) based on numbers, which serve to frame (Borah, 2011; Chong & Druckman, 2007; Entman, 1993) and articulate (Grossberg, 1986, 2014; Slack, 1996) the significance of these contributions through these numbers.

To take one more step away from the center of the scientific performance, towards the heart and nature of aesthetic art experience, and its highly individualized uniqueness (Adorno, 1970/1997), one could question as to whether the spectacle (Debord, 2012) of the science performance rests in the moment of revelation, both in laboratory or in analysis, or in seminars, presentations and conferences. Or whether or not, in fact, digital distribution of the scientific stage has removed the science performance away from science, and more towards a highly productive information system tracking activity through algorithms and video recorded performances which live on for years after the subject matter - the science and technology - have become obsolete in themselves. One could even question as to whether digital technology has democratized knowledge, providing information and science to all, or whether or not it has simply established another institutional force through which also the scientists themselves are being categorized, measured, reduced and compared. Over the next few years *The Researcher* will be exploring the significance of these paradigm changes, in an effort to construct, reconstruct, reiterate and dissect the "Cultural manifestation of lifelong learning". This contribution should be instrumental for all outcomes and definite articles in the field of concrete mushrooms.

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