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Performing Science

Blurring the Boundaries Among Art, Research, and Academic Communities

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Abstract

When and where does the art performance stop? Are there boundaries? The aesthetics of 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 with each portion of new knowledge. When life and its contents are viewed as a part of this artistic experiential process, it is impossible to disconnect one action from another. After intentionally opening the art performance, there is no way for an artist to consciously determine what this performance 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 that 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.

Keywords: art, performance, science, technology, discourse

Bio

Rebekah Rousi is an Australian-born and trained performance and print media artist who has worked as a researcher across several disciplines including visual culture, design history and human-computer interaction. Rousi is currently a Postdoctoral Researcher in Cognitive Science at the University of Jyväskylä, Finland. Rousi's interests rest in arts-based research, critical theory, human-robot interaction, and design history, in addition to interrogating the boundaries between art and science.

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to assimilate more and more of our social, economic, ecological, and aesthetic reserves, they have also increasingly withdrawn into their own specialized styles of articulation, consorting exclusively with their chosen forms of so-called facts and figures and actively rejecting any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)

Sue Ellen Case's (2007) introduction to *Performing Science and the Virtual* is a timely and critical anthology on the role of science and how it is played out through technology. Case's tenet is that the fundamental nature of science exists as performance through language, its articulation, and how it is connected to contexts and discourse. This rests at the heart of the current paper, which presents autobiographical accounts of artistic and scientific developments, combined with examples of artists who challenge the borders of art and science while using both as platforms for articulation and staging. The paper draws on the work of Stelarc, SymboticA, and Marc Quinn to illustrate the ways in which science is simultaneously employed as a medium of expression and also maintained as the object of critique. The long-running project *The Researcher* is introduced and described through the narrative of political academic discourse, continuing across the boundaries of international academic disciplines. The paper ends with an account of science as performance, critiquing current techno-scientific paradigms and unraveling the digital performances of self-citation, h-indexes and *p* values.

Art–Science Symbiosis

Art feeds science, and science feeds art. Both are continuous performances by those conscious of these processes and those who are not. The Australian-based international SymbioticA is described as a constantly evolving site for artistic investigation, in which artists can work, research, and learn in a scientific laboratory to critically engage in the life sciences (SymbioticA, n.d.b). The founding of SymbioticA was closely connected to work undertaken by Oron Catts and Assistant Professor Ionat Zurr, who had been engaged in the Tissue Culture and Art Project (TC&A) since 1996. The goal of the project was to examine how tissue technologies could be utilized as a means of artistic

expression and how people's relationships with 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, the 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 adopted to undertake these explorations not only reflected practices of the past and present but also served as 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) and other articulations, such as his *Prosthetic Head* (2003–2004), *Stomach Sculpture* (inserted technology), *Third Hand* (attached technology), and *Exoskeleton* (extending technology). Prosthesis in Stelarc's work does not refer to the compensation of deficiencies, deficits, or malfunctions; rather, it is used to express abundance (Stelarc, 1997–1999). Stelarc critiques the techno-culture that drives toward augmenting the body and its performance for commercial ends. This timely critique speaks of our current social, political, and economic climate as well as *digital* academic discourse (Case, 2007).

As Kevin Warwick (2003) so aptly states, "the era of the Cyborg is now upon us" (p. 131). The point of his article is to highlight the nature of cyborgs as working against humanity, rather than for it. Yet, it can be seen on a broader level—that the reduction of academia, particularly the *human-driven* sciences, to propelling and extending the idea that connecting people more closely to technology will allow technology to better serve us is counterproductive and unsustainable. This results in the attachment of people and scholarship 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 components of a computer, likening the mind to a computer's symbol processor (see, e.g., Card, Moran & Newell, 1983).

The power relationships in society become stronger through the consumption of augmenting technologies. Life is reduced not only to excess but to efficiency and control by those *in control*. Actions are judged according to their technical

competency and appropriateness to the overall technical system. Stelarc's work resonates with this and the aspirations of scientists such as Joseph Licklider (1960) who have described the future of a man–machine symbiosis, in which people and machines are 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. Quinn's work is highly personalized while also intending to describe the relationship between art and science (Quinn, 2016a). In particular, his work focuses on the body, its aesthetics, and perceptions of beauty. Through material exploration, he represents issues regarding life, growth cycles, evolution, genetic manipulation, identity, and death. Quinn's *Self* series (1991–present) was initiated at the height of his alcohol dependency (Quinn, 2016b). The *Self* series was driven by his need to articulate the compulsion to be attached or plugged into to some external source to survive. This is expressed through his materials: 10 pints (4.7 liters) of his own blood, cast in the form of his own head submersed into frozen silicone and requiring constant freezing (electricity). Every five years, Quinn iterates this process, resulting in another bust that reflects five years of physical change. Dependence is potent from numerous perspectives, including the discussion on the drive for man–machine dependency raised in Stelarc's work, the synthesis of materials ranging from human blood to the highly synthetic silicone, and the work's potential to either live on beyond the artist's passing or perish through technical failure of the technology keeping it in its current form[1].

The Researcher: Art Performing Science

The performance project *The Researcher* observes education, research, and its language as technologies upon which societies of people are dependent. *The Researcher* project began in 2004 as a probe into sociocultural technologies of institutionalized science and education. *The Researcher* operationalizes the human, behavioral dimension through which individuals are connected with the system. Various topics and titles are utilized in *The Researcher* performances, which address a range of issues, including socioeconomic and cultural inclusion/exclusion, explicit lifelong learning as a techno-cultural

1 On this note, the series is reminiscent 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 between those who can and those who cannot).

phenomenon, and the multidisciplinarity of interdisciplinary research (current piece). Yet, the driver of the pieces remains the same. *The Researcher* is the human mediator or interface between people in society finding their way into and within the institutional system. *The Researcher's* performance began as a photographic series and was planned as a lecture (see Figure 1).

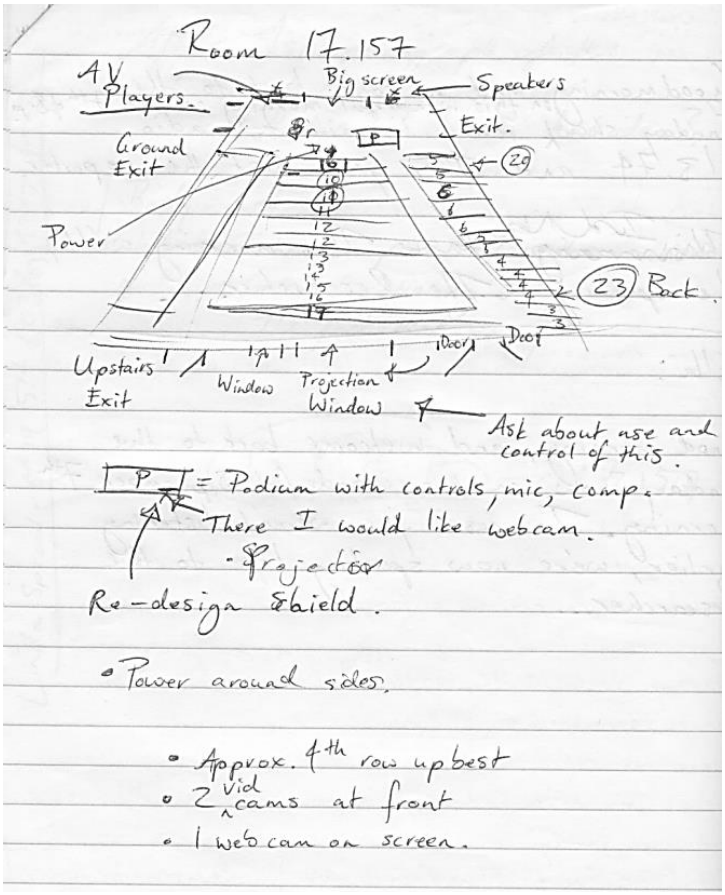

Figure 1. Plans for The Lecture.

A lecture theatre and equipment were booked; publicity material, including a website, had been created; and the script was finalized. The date drew nearer, but recommendations were made to cancel the performance due to the sensitive nature of both operating within a system (the university), on the one hand, and critiquing the nature of the fiber of institutional education, on the other. It was seen as a potential conflict of interest that would not be accepted by higher administration. Therefore, the lecture and its plans were archived to take life only in retrospective discussion on how *The Researcher* came to be.

The Longest Lecture Marathon—The World's Longest PowerPoint Presentation was conceived in 2007. This was a 27-hr PowerPoint presentation on the culturalism of integrated lifelong learning. This was not a conscious continuation

of *The Lecture*, yet it was generated from the same urge to comment from the throngs of discourse. The repetition of jargon was in the same vein as terms such as "innovation", "creative", "novel," and more specialized cultural studies terminology as well as the idea of lifelong learning, for example—what it says and does not say about engaging, including, and excluding people in institutionally structured education for the rest of their lives. *The Researcher* was once again needed to consolidate, process, abstract, and publicly execute the stifling and repetitive string of nonsensical linguistic constructs.

The Longest Lecture Marathon can be characterized as a techno-linguistic performance that is absurd and abstract, intimidating audiences and excluding people and things through language. *The Longest Lecture Marathon* was first performed at the ANTI Festival, in Kuopio, Finland (see Figure 2). In *The Longest Lecture Marathon*, 27 hr is spent reducing academic lecture material to a literal semiotic analysis of the foundations of words. The piece has been described as "Confusing, heavy, interesting, connected" (ANTI Contemporary Art Festival Kuopio, 2007). Later on, The Researcher (the name of both the project and the character), in her presentation of *The Longest Lecture Marathon*, has been likened to John Cleese "in Silly Lecturing at the University of Totally Trivial Pursuits" (Lathan, 2008).

Figure 2. Longest Lecture Marathon, ANTI Festival Kuopio 2007 (image by Pekka Mäkinen, 2007, courtesy of ANTI Festival).

The point of the *Longest Lecture Marathon* is to unfold technologies of pedagogical mechanics, and research as performance. Also, in their dependence

on the technological infrastructure through which they are manifested—whether that be Microsoft Office, IBM SPSS, or brain implants—an ecosystem may be observed, which implicates not just the production of art (and science) through technology but its performance (including outcome-based performance) and presence as such. SymbioticA in particular embodies these elements at all levels. It is a wet biology laboratory based at the University of Western Australia that engages in teaching at both the undergraduate and postgraduate levels and explicitly encourages students to critically engage in the course content and phenomena it addresses. Fellow (visiting) artists and the public are invited to engage in experiential practice and encounters with the lab and the artist-scientists involved. Its activities are designed to specifically interrogate the relationship between science and culture.

The Researcher, on the other hand, does not invite participation. In The Researcher's *Longest Lecture Marathon*, there is no room for dialogue or interpretation. In fact, the interpretation is undertaken verbally and physically by *The Researcher* throughout the 27-hr performance. *The Researcher* is not self-reflexive, and mechanically utilizes the scientific performative space to deliver content. There is no message in the content other than pure utilization of the linguistic technologies available in the space.

Science as Performance – A Conclusion?

On this note, and returning to science as a performance, the term performance has been adopted 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 focus on cyborgs, their relationships to humanity, and observing these beings as physio-techno manifestations dancing between humanity and the consumerist machine. Haraway uses cyborgs as vehicles to discuss the roles, representations, and reproductions of gender in scientific discourse. Similarly, Teresa De Lauretis (*Technologies of Gender*, 1987) and Judith Butler (1988) describe the performative acts of representing, repeating, iterating on, and constructing gender through socio-cultural technological structures. Historically and currently, excitable speech (Butler, 1997) in itself is a main driver in discursive constitution and paradigm construction, especially concerning technological and business trends.

Stephen Hilgartner (2000) argued that technoscience comprises an "on stage" nature, which can be observed across societal domains, not least in academia. Hilgartner analyzed report-making processes in the US National Academy of Sciences, where he observed the cultural production and performative components of scientific reports: the front-of-stage elements, including the report, media releases, and launching events; and the back-of-stage components, such as disagreements and criticism, disputes over intellectual property, and rival behavior. There are different types of scientific performances according to different purposes (Busch, 2007). Bruno Latour (1987) and Karin Knorr-Cetina (1981) highlight the differences between laboratory-based performances such as SymbioticA and scientific article-based performances. Their differences are typified by scientific articles being written in third person and laboratory experiments being carried out in first person yet without the acknowledgement of human intervention (Busch, 2007). This is one of the key points of *The Researcher* in her commentary on the academic institution's "magic cloak" service, which provides invisibility and immunity for players within its borders while adhering to its language games (Wittgenstein & Anscombe, 1958).

Google Scholar citations, with their citation counts, h-index, i-10 index, and histograms, have opened up another performative space, not simply between scholars and groups but among scholars. Hit articles are specifically about self-citation, including "Publish or Perish: Improving Your H-factor Made Easy Through PleaseCiteMe.com" (Wals, 2012); "Will This Paper Increase Your *h*-Index?" (Dong, Johnson & Chawla, 2015); and "Effective Strategies for Increasing Citation Frequency" (Ale Ebrahim et al., 2013). These authors are superstars, 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) is to gain visibility, external peer-driven verification, and of course one's 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 this popularity, Dem's paper posted on Academia.edu in 2014 has already attracted 46,862 views as of September 15, 2016.[2]

Today, scientific performances are presented on three main "stages" (Hilgartner, 2000): the laboratory; scientific texts and their associated events (launches, conferences, seminars, etc.), conflicts, and rivalries; and cyber scholar

2 In May, 2016, this was 44 691.

number exhibitions. One could question whether digital distribution of the scientific stage has removed the scientific performance from the science laboratory towards a virtual space of an information systems that track and instill hyper-productivity and, even more, hyper-representation. One could question whether digital technology has democratized knowledge, providing information and science to all, or whether it has simply established another institutional force through which the scientists themselves are 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".

References

Ale Ebrahim, N., Salehi, H., Embi, M. A., Habibi, F., Gholizadeh, H., Motahar, S. M., & Ordi, A. (2013). Effective strategies for increasing citation frequency. *International Education Studies, 6*(11), 93–99.

Boltanski, L. & Thévenot, L. (1999). The sociology of critical capacity. *European Journal of Social Theory, 2*(3), 359–377.

Busch, L. (2007). Performing the economy, performing science: From neoclassical to supply chain models in the agrifood sector. *Economy and Society, 36*(3), 437–466.

Butler, J. (1988). Performative acts and gender constitution: An essay in phenomenology and feminist theory. *Theatre Journal, 40*(4), 519–531.

Butler, J. (1997). *Excitable speech: A politics of the performative*. Hove: Psychology Press.

Card, S. K., Newell, A., & Moran, T. P. (1983). *The psychology of human-computer interaction*. Hillsdale, NJ: L. Erlbaum Associates Inc.

Case, S. E. (2007). *Performing science and the virtual*. London: Routledge.

De Lauretis, T. (1987). *Technologies of gender: Essays on theory, film, and fiction*. Bloomington, IN: Indiana University Press.

Dong, Y., Johnson, R. A., & Chawla, N. V. (2015). Will this paper increase your h-index?: Scientific impact prediction. *Proceedings of the Eighth ACM International Conference on Web Search and Data Mining*, 149–158.

Feenberg, A. (2005). Critical theory of technology: An overview. *Tailoring Biotechnologies, 1*(1), 47–64.

Haraway, D. (2006). *A cyborg manifesto: Science, technology, and socialist-feminism in the late 20th century.* Amsterdam: Springer.

Hilgartner, S. (2000). *Science on stage: Expert advice as public drama*. Stanford, CA: Stanford University Press.

Knorr-Cetina, K. D. (1981). *The manufacture of knowledge*. Oxford: Pergamon.

Lathan, P. (2008). KUNSTENFESTIVALDESARTS Diary (11). *British Theatre Guide.* Retrieved from http://www.britishtheatreguide.info/articles/300508b.htm

Latour, B. (1987). *Science in action: How to follow scientists and engineers through society*. Milton Keynes, United Kingdom: Open University Press.

Licklider, J.C.R. (1960). Man–computer symbiosis. *IRE Transactions on Human Factors in Electronics, HFE-1*, 4–11.

Quinn, M. (2016a). Read/biography. Retrieved from: http://marcquinn.com/read/biography.

Quinn, M. (2016b). Self. Retrieved from: http://marcquinn.com/artworks/self.

Stelarc. (2016a). Extra ear. Retrieved from: http://stelarc.org/?catID=20229.

Stelarc. (2016b). Prosthetic head. Retrieved from: http://stelarc.org/?catID=20241.

SymbioticA. (n.d.-a) Extra ear—¼ scale. *The Tissue Culture and Art Project*. Retrieved from http://www.tca.uwa.edu.au/extra/extra_ear.html.

SymbioticA. (n.d.-b) About the TC&A project—The manifesto. *The Tissue Culture and Art Project*. Retrieved from: http://lab.anhb.uwa.edu.au/tca/about/

University of Western Australia. (2016). SymbioticA. Retrieved from: http://www.symbiotica.uwa.edu.au/

Wals, A. (2012). Publish or perish—Improving your *h*-factor made easy through PleaseCiteMe.com. Retrieved from https://transformativelearning.nl/2012/04/26/publish-or-perish-improving-your-h-factor-made-easy-through-hbay/

Warwick, K. (2003). Cyborg morals, cyborg values, cyborg ethics. *Ethics and Information Technology, 5*(3), 131–137.

Wittgenstein, L., & Anscombe, G. E. M. (1958). *Philosophical investigations* (Vol. 255). Oxford: Blackwell.