Swing That Thing: moving to move

The poetics of embodied engagement
Swing That Thing: moving to move represents a systematic investigation of the poetic valence of body-worn technological extension. Gestural, mechanical and sensorial extension are explored and evaluated. The impact of different choices throughout the development process are considered, and theories relating to language, movement and cognition, as well as defamiliarisation and enchantment are leant upon to arrive at an emergent definition of a poetics of embodied engagement.

Focusing on the body and its capacity for movement opens up opportunities to develop deeply felt experiences that take us far beyond pragmatic considerations of functionality or practicality. Pairing technology with the body is not new. Yet embodied engagement has only recently emerged as a field of interest in its own right, despite the fact that moving is central to life. Humour, passion and empathy are desirable attributes through which to engage people. Through the praxis I demonstrate that core- and full-body engagement in ambiguous and playful situations, assist designer and participant to arrive at deeply felt understandings of embodied existence, and thereby re-imagine body-technology scenarios to mitigate unmet desires.

This research champions a number of key ideas. If we engage the body through the imagination and the imagination through the body, we can blur distinctions between art and everyday life. Doing so may result in transformative outcomes in contexts that are not usually considered cultural. By beginning with the body, rather than a perceived opportunity to redesign and thereby improve, I have been able to develop systems and processes that afford clumsy, as well as skilled engagement. Participation has thereby been democratized. The results are artefacts and opportunities for embodied engagement in cultural contexts, as well as in abilitation and learning.

**Keywords**
performativity, participation, poetics and play
Like viewing a career under strobe lighting, I see only snatches. Danielle is someone I stumble into. Maybe I notice because her work always challenges somebody. Maybe it is because her projects make me grin. Stumbling is not elegant, but it captures the serendipity of our encounters and my repeated sense of discovery.

Danielle is someone I have ridden on the bus with, arguing about the authorship of embodied design methods. She wore her nails coloured red and white; tippex-ed, spotted; painted by some Japanese friends.

Danielle brings a tiny replica of the Rosetta Stone when she visits, Japanese friends.

Time passes. It is December 2006. I am in Australia. So is Danielle and, at the northernmost university in Queensland, nearly buried in the bush, she is busy over a laptop finishing a presentation when we spot each other. You’ll love this one, she tells me gleefully.

The audience loves this one.

Five years on, I follow Danielle’s link to the reviews from auditions watching her win an episode of The New Inventors – a show that “celebrates the inventiveness and resourcefulness of the human mind, and the determination and hard work of those who dream big dreams, and then slave away to make them real”. hiPDisk has come of age to a storm of derisory comments…”I can imagine whoever is steering this show at the moment is going for the whole ‘groovy lefty experience’.” “The hip disk??? In response to the inventors notion about people not moving their hips, I’d recommend that she get out of her workshop/lab and actually observe and interact with society. Off the top of my head a huge number of people are dancing, doing Zumba, going to the gym and doing yoga - all involve hip action.” Danielle is stoically amused. She has drawn our attention to this barrage, after all. She has won the round in a national talent show, after all.

In 2006, in the slow-wait lecture theatre of James Cook University, we are loving it and laughing happily. Four dancers are caught on film bending into a wide circular upper disk attached below the waist, and - through just the right act of manoeuvring - touching it, in the correct spot, to a wide circular lower disk. Pitching a note is as challenging as using the slide on a trombone, although the only brass instrument approaching this envelopment is the sousaphone. There is something levelling about watching dancers struggle gracelessly with overgrown hula-hoops. And, again, this is not happenstance.

Danielle and I sit in Brighton and she tells me of the difficulties of sewing circuits into fabric: We are snug in a tea shop. We sip lemonade and talk about whether I will ever write about her work. There is a background of seagulls, but there always is in Brighton. A few weeks later and we have conceived of talking about her work backwards, from the impact on the audience to the process of making. But I don’t.

Danielle likes Brighton though her vision of extending hiPDisk faces better when she moves to Nottingham. Here, fast on our last meeting, I find myself witnessing a talk she gives to the department she has joined at Nottingham Trent, where conductive fabrics are

all around her. By now, Danielle is doing hiPDrawing. This involves rotating the hips to inscribe lines on a surface in the environment. For those of us raised on Etch-a-Sketch, it is a weirdly moving experience. Strange and dysfunctional gyrations of the torso create patterns that snail across the walls. For those who remember the frantic turning and tiliting to be accomplished in making Etch-a-Sketch work, the movements are large but not unfamiliar. Just like the game, you shimmy, shake, and the drawings disappear. A celebration of the biggest co-ordination challenge of our young lives and the hardest-won arcs in history… magic!

Then there is another gap and Danielle is going places. She is in Paris. She’s back in Melbourne; now off to Canberra. I’m going to go to tea with the Prime Minister, she tells me, and off she goes because she has won the Australian Prime Minister’s prize. It will mean a year in Japan. I agree that I will come to see her in Tokyo. I want to. I don’t.

So, I miss a phase. I feel my grasp on this body of work weakening, just as a new vision grows strong. I see her posts on Facebook when I happen to be looking at the right time. And the comments from friends highlight the insubstantiality of these encounters... and the infrequency of our communication.

Until I am in Australia again and so is she. I meet her collaborator, the pan-European Kristina, and see OWL for the first time. By now it is the end of 2010. Her PhD is almost finished. The nature of the new project has become apparent in a series of wearable shapes. OWL is a range of body-prosthetics for parts we haven’t discovered yet. It’s not electric. It’s not funny. It has intent. It is creeping inspiration from the musings of ordinary users and turn it into the anticipation of triumph? But she stops projecting functions and extensions that simply mark bodies and space. The carmine pink is In the absence of the power to disconcert, it bonds and blends, like technology. It promises much. It speaks of what could be effortlessly and thoughtlessly ours instead of how we knock against each other in our usual clumsy, chaotic world. And I wonder if Danielle has stopped throwing us into reflection on our awkwardness and grace. Has she fallen into league with the designers who can weave inspiration from the musings of ordinary users and turn it into the anticipation of triumph? But she stops projecting functions and extensions that simply mark bodies and space. The carmine pink is back in a laser-sharpened light that tracks the spine and follows every able and unable move.

Danielle and I drink too much sparkling wine at a conference supper by Bondi Beach. She sends me to meet a Hong Kong professor who lives in an office piled up to the sky in some miniscule of his island.

She has talked to him at length about embodied interaction. I talk to him about embodying spectatorship and crossing the line. It is sometimes in the future. I am back in the conference room, staring down at a bank of heads bowed over programmes. Hundreds of necks stretch: curved and exposed. They could be surprised so easily by a gust of wind or worse.

Impersonal and yet true to type, some necks are graceful and some hardly rise out of the neckline of their clothes. I am sensitized to thoughts of clumsiness, vulnerability and grace because I am about to see Danielle Wilde’s latest move. Hundreds of heads lift abruptly as, onto the floor, steps a rounded form with awkward extensions that simply mark bodies and space. The carmine pink is In the absence of the power to disconcert, it bonds and blends, like technology. It promises much. It speaks of what could be effortlessly and thoughtlessly ours instead of how we knock against each other in our usual clumsy, chaotic world. And I wonder if Danielle has stopped throwing us into reflection on our awkwardness and grace. Has she fallen into league with the designers who can weave inspiration from the musings of ordinary users and turn it into the anticipation of triumph? But she stops projecting functions and extensions that simply mark bodies and space. The carmine pink is back in a laser-sharpened light that tracks the spine and follows every able and unable move.
Possibly the most undignified musical instrument ever, hipDisk exploits changing relationships between torso and hip to actuate sound. Simple horizontal disk-shaped extensions of the body exaggerate, so make highly visible, the interdependent relationship of the hip and torso. Soft switches, strategically placed around the perimeter of each disk, allow the wearer to play a chromatic, pentatonic, major or minor scale (depending on the disks they are wearing), and so play simple melodies, restricted only by flexibility and speed of swing.

hipDisk is designed to inspire people to swing their hips and explore and extend the full range of movement available to them through a simultaneous, interdependent exploration of sound. In creating hipDisk, the interest was to move beyond limb- and digit-triggered switches and explore full-body movement for actuation. The resulting body-instrument interconnects choreography and composition in a fundamental way, and in doing so opens up new areas of exploration.

hipDisk began as a solo affair. The hipdiskettes were subsequently formed to explore the compositional choreographic potential of the device. The failure of the hipdiskettes to master a tune did not deter audiences from applauding enthusiastically, and requesting to try it for themselves. The work has since been made participatory.

First prototype developed at ANAT and Craft Australia’s (re)Skin Wearable Technologies Lab at ANU, with input from Cinnamon Lee, Michael Yuan, Somaya Langley and Alistair Riddell. Subsequent prototypes developed at Monash and CSIRO MSE with support from Brendan d’Arcy and Tony Gargett, Andrew Brown, Michael Borthwick, Julian Featherston, Andrew Bencina and Winter Hill Music, and Dean Wallis. Further info and details: www.daniellewilde.com/dw/hipdisk.html
If you would like to wear HipDisk please refer to the lift-out card at the back for instructions.
The gesture≈sound experiments

a collaboration with Ross Bencina and Somaya Langley

The gesture≈sound experiments aim to mesh gestural/physical and sonic composition in such a way that sound production seems an inherent and unavoidable consequence of moving the body. The desire was to explore movement and sound interdependently, by leveraging the complex and dynamic relationships that may be generated between the two modalities. We sought to create new kinds of gesture≈sound mappings that would support composer-performers in stepping out from behind their laptops to engage in embodied (gestural) control and generation of sonic output.

My role in the collaboration was to work with Bencina and Langley to develop vocal- and multi-modal prototyping methodologies, leveraging my knowledge of movement-based interaction, theatre and performance techniques, as well as their considerable experience with electro-acoustic composition, and software development. The resulting methodologies hierarchically flatten movement and sound, by interweaving the development of physical movement, recording and generating sounds; and devising algorithms, taking into account their differing development times. The result of this approach is that sound and movement become enmeshed. The schema for the methodologies arose out of the shared belief that interweaving the development of the different elements would open up new ways of thinking about gestural sound performance and lead to gestural sound synchresis.

The gesture≈sound experiments were undertaken at STEIM Studio for Electro-Instrumental Music, in Amsterdam, with support from The Australia Council for the Arts, and The Australian Network for Art and Technology (ANAT), using sounds from The Freesound Project: www.freesound.org, including “GOURDOPHONIA” African percussion sounds by memekon. Special thanks to: Nico Bes, Takuro Mizuta Lippit and the late Michel Waiswizs. Thanks also to Steve Adam for additional max programming. Further info and details: www.daniellewilde.com/dw/gesturesound.html
If you would like to undertake some of the gesture-sound experiments please refer to the lift-out card at the back for instructions.
hipDrawing

hipDrawing is a celebration of the body and creativity. The aim is to encourage people to experiment and explore, as well as bypass their usual instincts to self-censor, by turning them into a human hip-controlled Etch-A-Sketch. When wearing the hipDrawing garment, participants swing and shake and shimmy in strange and undignified ways, their actions motivated by their desire to draw, and see their hip movements made concrete. Complex 3D movements are flattened onto xy-coordinates. The results are often anti-intuitive. The system demands intense scrutiny of the relationship between gesture and output in order to draw anything with intention. More intensely than any of the other devices in the suite of works presented here, hipDrawing prompts a process of creating and reflecting on new modes and patterns of bodily experience, as facilitated by the interaction between body movement and the effects of the technology. Participants' movements become beautiful through this reframing, as well as unfettered and free.

hipDrawing has been presented at Surface Tension, at The London Science Museum Dana Centre; Melkweg and Five Days Off Festival, Amsterdam; The Netherlands Institute for Media Art (NIMK); Powered Art and Fashion Design exhibition, Amsterdam; and Dancehouse, Melbourne for Time Transcendence Performance (TTP), and an Open Studio viewing. Thanks to Dave Fox, Andy Gelme/Hackerspace Melbourne, Michael Gent and Agnès Belkadi at Comète 347, Safwan Chendeb and Maurice Benayoun at Le Citu (Paris University 8), Guillaume Paris, STEIM, Studio for Electro-Instrumental Music, Amsterdam, especially Nico Bee, Kristina Andersen and Vissen Wernk Lin, Thanks also to Johnnie Firth and Kmıie Beeley. Piers Morgan: improvised guitar for the two Dancehouse performances. Michael Borthwick: video and editing of the TTP performance included in the exhibition and on the DVD. Further info and details: www.daniellewilde.com/dw/hipDrawing

If you would like to try hipDrawing please refer to the lift-out card at the back for instructions.
Bloomer and Moore, in Body, Memory and Architecture, suggest that what is missing from dwellings today are the potential transactions between body, imagination and environment. Light Arrays provide a way of thinking about these transactions from an experiential, as well as visual, perspective. They allow us to enter, understand and experiment with our non-observational relationship to space. Echoing Merleau-Ponty’s claim that the paintings of Cézanne “make visible how the world touches us,” the Light Arrays make visible how our gestures touch the world.

In the initial experiments, three theatre artists, adorned with a range of lasers and LEDs, undertook freeform movement experiments, responding instinctively to the light-based extension. Their explorations pointed to two lines of research: (1) augmented proprioception, generated with the light-based visual feedback system, and (2) enhanced body interaction using interactively augmented body-lights that reflect and respond to movement through time, as well as space.

With Alvaro Cassinelli and his Meta Perception research group at The University of Tokyo, we identified, investigated and pushed beyond the initial results to develop three garment/interfaces: the laserSpine, the in-visible skirt, and inertiaLEDs. We iterated these interfaces through a multi-tiered design-choreographic process with and for choreographers, Alessio Silvestrin and Kentaro!! The collaboration with Kentaro!! and Silvestrin was commissioned by, and presented at The 3rd Yebisu International Festival of Art and Alternative Visions, which took place in Tokyo, Japan, 18-27 February, 2011.

initial experiments: Monash University; Karen Berger, Tim Page and Elijah Ungvary. The extended Light Arrays: The University of Tokyo Ishikawa Oki lab; Yebisu International Festival of Art and Alternative Visions; Bunkacho, Japanese Agency for Art and Cultural Affairs. Thanks to Professor Masatoshi Ishikawa, Hiroko Tasaka, Kentaro!!, Alessio Silvestrin, Naoya AOKI, Alex Zornog, Tica Saitama, Kenichi Ejichi, Yelena Gluzman, Tsuyoshiyasushi Yamamura, Hiroki Oikawa, Soekis Hiuchi, Michael Borthwick, Tokyo University Bilg 6 Engineering Workshop Technicians, Yutaka Endo, Takeshi Inarimori; Piers Morgan, Norimitsu Hikawa. My placement in Tokyo was supported by an Australian Prime Minister’s Australia Asia Award. Further info and full credits at: www.daniellewilde.com/dw/lightarrays.html, www.k2.t.u-tokyo.ac.jp/perception/lightArrays/index-e.html and www.yebizo.com/#pg_off1
自然、身体、映像：見えないスカートと想像上のものたちができるまで

3) ダンス・デモンストレーション（夕刻）

ウイルド・カシネリ両氏が開発した3種類の装着装置（ウェアブルデバイス）を用いて、2機のガンペイ（アリーチオ・シルク・ヴェスチョン・ッシュ・ステージ）によって、KENTARO!!との協働作品を実現した。各ダンサーが自身の身体をあわせて装着するインストレーションを実現し、2種類のパフォーマンスを約2週間にわたる研究とリハーサルを経て制作し、映像祭終幕後の8日間の毎夕に発表した。

モダルオンプロジェクトの研究が始まり、東京での特別研究として来日したウイルド・カシネリ氏を含め、さまざまなアーティストが京都の美術館内を舞台に、新たなテクノロジーと映像の可能性を探求する場を構築した。カシネリ氏は、年間10回以上京都に来日に約1年を過ごし、常に新たな発想を模索し続けている。その一日をこのプロジェクトを通じて発表し、新たな視点を提供することを目的としたものである。

ハリスー国際映像祭（Yebisu International Film Festival）

毎週末に開催される映画ティムを心がけ、映画を観る場を提供し、映像を大象徳に接し、新たな視点と表現を追求することを目指す。また、毎週末に映画を観る場を心がけ、映像を大象徳に接し、新たな視点と表現を追求することを目指す。また、毎週末に映画を観る場を心がけ、映像を大象徳に接し、新たな視点と表現を追求することを目指す。また、毎週末に映画を観る場を心がけ、映像を大象徳に接し、新たな視点と表現を追求することを目指す。また、毎週末に映画を観る場を心がけ、映像を大象徳に接し、新たな視点と表現を追求することを目指す。また、毎週末に映画を観る場を心がけ、映像を大象徳に接し、新たな視点と表現を追求することを目指す。また、毎週末に映画を観る場を心がけ、映像を大象徳に接し、新たな視点と表現を追求することを目指す。また、
devastation of East Japan. The country had no choice but to come face to face with nature in all its rawness. This raised the question how best should "techne" (art=technology) exist? It is a difficult question, which cannot easily be answered, but it is something to contemplate whilst reflecting the memories of this project.

Office project
Daniel Wilde and Alvaro Casini, “the in-visible skin and other imaginary things”
Date: February 8 to 27, 2011, closed February 20 (Mon).
Location: Center Square, Yebisu Garden Place
Platforms: Dance performances
Alessio Silvestrin and Naoya Aoki: February 20 (Sun), 22 (Tue), 24 (Thu), 26 (Sat) 19:00-21:00
KENTARO!!: February 8 (Fri), 11 (Mon), 13 (Wed), 25 (Wed), 27 (Fri) 19:00-21:00
Platform 03: Experimental demonstration: February 14 (Sat), 20 (Sun), 25 (Sat) 16:30-19:30
Lecture and Demonstration: February 23 (Wed) 16:30-18:00 Museum and Floor Café
Organized by the Tokyo Metropolitan Government; MPM Museum of Photography; Tokyo Culture Creation Project; J-WAVE, Inc.
Co-organized by Yebisu Garden Place Co., Ltd.

Acknowledgements

Support, Alexis Zerroug.
If you would like to try any of the light arrays garments, please refer to the lift-out card at the back for instructions.
The main character in the famous 19th century novella Flattent (a square-shaped individual trapped in a two-dimensional land) struggles to bring different light on his worldview. Leaving aside the mathematical turn of the novella, one can say that Danielle’s practice is animate by a similar — and at first sight esoteric — desire: to “find a way and move forward.”

But wait: are we stuck at all? If so, in which sense? And, to where exactly could — or should we run? Such questions are, in many respects, manifest. However, Danielle’s work is the subject of a series of practical enquiries centered on performativ experimental experience. As in Abbott’s novel, she sets herself to reveal — and finds ways to overcome — the invisible barriers that keep us separated from a world at our reach (which is clearly not Northward either).

**“Caminante no hay camino, se hace camino al andar.”**

To begin, she entices our curiosity through playful structures that fuel a suspicion that there may be more to the experience of the human body and half of the world: rehabilitation techniques on the one hand, and half of the world, rehabilitation techniques on the other. Danielle proposes methodologies to reassess our corporeality, as derived from the observation of a series of disruptive, idiosyncratic, but inspired experiments drawing on things as different as dance improvisation, brainstorming, and meditation or contemplation. As in Abbott’s novel, she sets herself to reveal the limits that our relation to the world.

In my opinion, such is the artistic/poetic motivation behind work situated at the crossroad of Interaction Design, human-computer interaction, architecture, fashion, performance and ethnology. By taking out such territory, Danielle claims a place of particular power (and conceptual stability) from which to operate some magic levers. These materialize as body-worn devices, in which technology plays a central role because it enables the engineering of guises that can only be made possible by technology: new forms of illusion (absurd and surrealist) possibilities it prompts the wearer to imagine. Crafting their magic (ie, their evocative power) requires first a reassessment of the meaning of a (necessarily) embodied existence. This is a process she thought more tractable by phenomenological thinking, by observing and discussing experiences of playful engagement with what is given, before one can find a purpose or a definition for it.

In all of her works, Danielle recognizes and harnesses the disruptive force of play. It is the capacity of performance, process and display information in real time. It can therefore be used to reshape the human action-perception loop. In particular, by carefully crafting devices that interfere with the natural senses and perception of the body, it is possible to project an individual back to another stage of her or his cognitive development: the sensorimotor stage. However, as the wearer may be an adult, having completed all the other stages of cognitive development, the effect is to render the sense of embodied self utterly unfamiliar. This in turn helps focus attention in a myriad of normally invisible and subconscious processes, and opens the way to their conscious manipulation and re-programming. Hemangiosoma is a disease that makes the sufferer unaware (in all the worst possible senses) of the depth and half of the body and half of the world, rehabilitation techniques centre on forcing the patient to engage with this neglected half, with the hope that this exercise will reintroduce the neglected half into the patient’s consciousness — and that in a certain sense we are all neglecting a large part of the world — of what’s possible with our bodies in the world, and with the world through our bodies.

Danielle’s research may indeed inspire formal studies and new methodologies in process-driven interaction design, or pave the way to new approaches to physical rehabilitation; regardless of the utilitarian value of her investigation, the works described demand to be appreciated for their artistic power alone, inspiring in ways only Art can do: that is, in an indirect, multimodal and rich way, always hard to describe in words. This is truer here, as we will, in fact, roam the boundaries of the analytical mind as the sole device to comprehend reality. The works inspire people to move from their core, to join the cosmic dance that creates and re-creates the Universe at each instant; perhaps Danielle is also suggesting that everyone can invent and contribute some steps from their own.

The works of Ishikawa-Oka Laboratory, The University of Tokyo

**Works: 300 frames and 11 hours of virtual reality experience.**

**“Le Poète se fait voyant par un long, immense et raisonnable dérèglement de tous les sens”**

In Flatland: A Romance of Many Dimensions by Edwin A. Abbott.

**“I say one must be a seer by a long, gigantic and rational derangement of all the senses”**

Hiroko Tsukada and Alexios Silvestro in front of the Streets of Flatland

**“Wanderer, there is no road, the road is made by walking.”**

In Proverbio cantantes (Camps de Castelló), by Antonio Machado.

Screwing is an art very magic ritual that involves seeing things in a medium (crystal balls or mirror). Its main purpose is to obtain spiritual visions (though it's often associated with more mundane fortune telling practices). More modern observers have claimed that the intense concentration it requires enables the practitioner to connect with the world of the Subconscious.

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the OWL project

a collaboration with Kristina Andersen, of STEIM, Amsterdam

“any sufficiently advanced technology is indistinguishable from magic”
– Arthur C. Clarke’s third law of technology prediction –

“How will we go about finding that thing the nature of which is unknown to us?”
– Meno, in Plato’s Dialogues –

The OWL project consists of soft placebo bodyProps for embodied interviews, to support the conception of yet-to-be-imagined technologies, and a series of circle workshops in which participants build their own exploratory devices, examining emergent body-technology desires.

Phase One: The bodyProps were designed without a pre-defined function and are tested or ‘probed’ through the interview process to ascertain imagined functionality. Wearing the bodyProps, participants are led through an embodied reflective process to conceive of yet-to-be-imagined technologies. They are asked to match their reflections with a desire, then they pose for a self-portrait to claim ownership of their new discoveries.

Phase Two: The OWL circles are similar in form and construct to sewing circles, yet are highly structured to support specific types of exploratory outcomes. The circles begin with a desire, map this desire back to the body, and then use this newly discovered body-desire coupling to construct an emergent exploratory device, which is identified and named during a video interview at the moment it is deemed complete.

Inviting people into the design process, and leaving the technology to their imagination, rather than providing or proposing existing technologies with known uses and/or clearly defined parameters, affords wild thinking from participants as they envision potential use. The openness afforded by the OWL structure, supports open imagining from and through the body and desire instead of thinking constrained or initiated by technological capability or project requirements. While not necessarily anti-design, the OWL methodology contrasts dramatically with traditional design processes, where the purpose and broad functionality of “that which is being designed” is usually known in advance. This approach aligns with aspects of the embodied ideation techniques explored in the other projects, yet more strongly calls into question the validity of a traditional approach through its focus on trying to bring into being what Clarke describes as “sufficiently advanced technology.”

Supported by STEIM, Studio for Electro-Instrumental Music, Amsterdam, and The University of Tokyo, Ishikawa Oho Lab. Circles, interviews and a participatory lecture hosted by Hiaa Elementary School Community Group, GM Project Space, Tokyo; YCAM, Yamaguchi Centre for Art and Media, Studio Imaichi in Japan, and the Interactivation Studio at UTS, in Sydney. Thanks to Chiki and members of the OWL dance company, Studio Imaichi, Yokohama 2010. Thanks to Chiki and members of the OWL dance company, Studio Imaichi, Yokohama 2010.
Our OWL workshop swooped down out of the blue, when someone I knew only from the anonymous frontier of the Internet asked if I could help host one in my community.

Higashi-Azabu is a quite ordinary residential neighborhood in central Tokyo -- neither rich, nor poor, nor traditional, nor trendy -- and as such, it offers a good cross-section of ordinary people leading ordinary lives. Yet ordinary people often have extraordinary ideas, so I knew my neighbors would be open to participating. They're always eager to try new things, especially if it involves everyone gathering together.

The details of the OWL workshop circulated by word of mouth, and at the appointed time on the specified day, a small crowd gathered in the local community center at the former neighborhood school. An architect, a student, a waitress, a housewife, a company president -- people of all ages and from different backgrounds and experience came together, ready to follow instructions.

Words written on small slips of paper, that they must first understand, and then try to adapt to their bodies? Materials like stuffing, yarn and wire? At first, there was lots of hesitation, and concerned whispering in Japanese -- no one wanted to do anything wrong. They all wanted to understand what they were supposed to do, and do a good job. The room hummed with explanations. The group dynamic (so vital in this country) worked to help everyone feel confident and enable even those who didn't understand at first to fully participate.

I noticed that even though everyone worked on his or her individual project, there was much sharing and discussion as people worked. Everyone wanted to know what his or her friends were doing, and I heard lots of advice and encouragement exchanged.

As for the projects, I particularly enjoyed watching the final presentations, which were videotaped -- they were almost performance art themselves. The participants explained their work and ideas, and I was amazed at how eloquently they were able to explain how their creations embodied the concepts they had randomly selected. Japan, as I said, is a country that emphasizes the group, and these projects were individual efforts. But perhaps all of the discussion made them collaborative efforts?

In some ways, the workshop reminded me of our neighborhood festivals. They start with concepts: children’s games, dancing, chocolate-covered bananas. Someone gets assigned to one concept, materials are gathered, and the reality takes shape. There’s discussion, and very often, there’s innovation. How can we get the chocolate bananas to stand up, while the chocolate dries? Oh, maybe we can push the sticks into styrofoam! Someone poses a problem, and the group comes up with its solution. Physical limitations are overcome, and the concept becomes a reality.

Sometimes, people still ask me, “Remember that day the artists came? That was fun.”

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OWL workshop
Lisa Twaronite

If you would like to undertake an OWL interview or circle, please refer to the lift-out card at the back for instructions.
Danielle Wilde (AU/FR) is an artist researcher and experience designer. She hold an MA in Interaction Design from the Royal College of Art in London, and with this exhibition completes a PhD in body-technology-poetics, at Monash University, Melbourne (Fine Art), with the support of CSIRO (Materials Sciences and Engineering). Her research toolkit includes architectural design, basic electronics systems design, garment engineering, costume and theatrical artefact design, dance and performance direction and design, sculpture, cooking, intense curiosity, a number of languages, and a range of complementary somatic (body-based) techniques. She has a background in circus arts and a penchant for participation. Her work questions how we design, create and live. In 2016 Danielle received the Prime Minister's Australia Asia Award for research at The University of Tokyo Ishikawa Oku Lab. In 2015 she held fellowships and artist residencies at The Open University Pervasive Interaction Lab, Sussex University Creative Systems Lab, Nottingham Trent University Smart Materials Centre, and STEIM, Studio for Electro-Instrumental Music, Amsterdam. She was also supported by Comité J47 and Le Cif, in Paris. Prior to the PhD, she was a speechwriter for two Chief Scientists of Australia, a researcher and production manager on award-winning European films about art and technology, and a lead artist and researcher on projects in the UK, Europe, the US and Japan. Danielle’s work brings our attention to and through the body in unusual ways, often leveraging the democratizing value of clumsiness. She has engaged with incredibly diverse communities of practice, whether required by her research, or happened upon in daily life. From this experience she has become committed to playfulness, and a poetics of embodied engagement. By placing the body central, and engaging the body through the imagination and the imagination through the body, she is able to blur boundaries between disciplines and question the divide between art and everyday life.

The projects described here are part of a PhD in body-technology-poetics undertaken at Monash University and the CSIRO.

Acknowledgements

Work like this cannot happen in a vacuum. I am incredibly grateful to each and every person, too numerous to list, who has helped me to shine, as well as struggle and grow. I am especially grateful to my mother, River Buckland; my supervisors, Dr Melissa Miles and Dr Richard Helmer; and the many people who welcomed me into their labs, research centres, studios, faculties and homes. I would especially like to thank Romy Achtnich, Masatoishi Ishikawa, Alvino Casinelli, Yvonnie Rogers, Phil Bredon, Sarah Kettley, Michael Gent and Angès Belkadi. I would also like to thank everyone at STEIM for supporting me through numerous projects and residencies, especially Nico Bee, Takuro Minato Loppit, Vivian Went Lin, Kristina Andersen, Rosa Wawrzewski and the late Michel Wawrzewski. My heartfelt thanks to my collaborators, Kristina Andersen, Alvino Casinelli, Kentaro!! Alessio Silvestrin, Naoya Aoki, Aless Zennoug, Pars Morgan, Rosa Benccina, and Simaya Lampelj; as well of all the participants. A very special thank you to the hipdiskettes: Sapidah Kian, Rinske Gimbarg, Kate Hunter, Genevieve Messenger, Lizzze Poggen and Miyuki Jobrant. Thanks also to Michael Borthwick, Barbara Davis and Denise Raimik for ongoing technical support. Funding for this PhD includes: an Australian Postgraduate Award (APA), a generous CSIRO APA top-up; a Monash Office of the Pro-Vice-Chancellor (International) European Travel Grant; a Monash Research Graduate School Postgraduate Travel Grant; a British Council Design Researcher Award; a Ubicomp Grand Challenge Early Career Exchange Award; and an American National Science Foundation travel award. The Light Arrays performances were commissioned by the Yebisu International Festival of Art and Alternative Visions, with additional funding from Bunkacho, The Japanese Agency for Cultural Affairs and The University of Tokyo. The catalogue and DVD were supported through a zoomie.com project. Other project-based funding is listed elsewhere.

I am the first artist researcher to do a practice-based PhD at CSIRO. For this privilege, I would like to extend enormous gratitude to Dr Jim Peacock, AC. My position at CSIRO was unprecedented. I hope my work, and work ethic, enables others to benefit in turn.

This exhibition is my first solo exhibition. Thanks to Ann Light, Alvino Casinelli, Hirono Tatsuka and Loo Tawantsike for their wonderful essays; Kenichi Ejichi, Sarah Paxfield-Nealefou and Cathy Sell for their translations; and Annette Trevitt for last minute editorial support. Thanks to Julie De Pauli for this gorgeous catalogue, and Michael Borthwick for overseeing all of the AV requirements, including filming during the opening, producing the exhibition Blu-ray, DVD media, and the catalogue DVD, as well as filming and editing the Dancehouse video of hipDrawing. Thanks to Nicolas Searle and the ABC for The New Inventors Footage, Bombayra for the RTVE Spain Metropolis arts program Jap_On interview; and Keiko Osumura, Hirono Tatsuka and the Yebisu International Festival of Art and Alternative Visions for the footage of our work at the festival earlier this year. A very special thanks also to Mark McClean, Ian Blanchonette, photographer Remak Baramic, Proyo Baghen, Black Olive Catering, Mark Oliver, Greg Reum, Nick Finch and Salvatore Martinez Marinopoulos provided by O M A shopping systems. Thanks to Daryl Moss and Stacey Matlock. Thanks also to JVC Professional.

Doing a PhD is monumental. Without all of this support I could not have achieved a fraction of what I am presenting here. My gratitude is without bounds.

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Welcome. Please imagine a brief introduction, and reflect upon the quotes from Arthur C. Clarke and Meno (above).

"How will you go about finding that thing the nature of which is totally unknown to you?"
- Meno, from Plato’s dialogues

"any sufficiently advanced technology is indistinguishable from magic"
- Arthur C. Clarke’s third law of technology prediction

The Desires
Take the sixteen “common desire” cards. Read one aloud, note the associated need (written on the reverse) then place this card on the table, desire facing upwards. Repeat this with all sixteen cards. Now choose one.

Transfer to body
Please decide in which part of your body your chosen desire resides.

The Material Switch
Now choose materials that you find appealing, that somehow speak to your newly identified body-desire pairing.

Thinking with the hands
Without knowing what to do in advance, please begin making. Continue until you are “done”.

Being “done”
When you recognise that you are “done”, advance to the video interview corner

Description
Take the video camera remote control. Without rehearsing, press record then tell the camera: your name, your desire, what your object is called and what it does. Press stop. Do not review the footage.

Debrief
A short debrief completes the OWL circle. Please take care to perform this.

Ideally this should be done in a group with an OWL facilitator.

the OWL circle

Swing · That · Thing : moving to move · The poetics of embodied engagement ·
There are six bodyProps inside the bag. You will experience them in a particular order. When you have completed steps 2-5 for the chosen bodyProp, you will place it back in the bag and take the next one.

Please take a bodyProp and place it on your body. Move around, and speak about what it feels like to wear this device. Speak about what kind of magical powers it might give you if it contained yet-to-be-imagined technology.

Take a seat. Please answer the questions: What is it called? and What does it do? on the small slip of paper provided.

Please choose a desire to associate with the device. This does not need to be coherent with your other responses.

Please construct a self-portrait, wearing your bodyProp. Choose your pose and how the image should be framed. You may look at the image on the camera to confirm the results.

Repeat steps 2-5 with all six bodyProps.

Please sign the research consent form to indicate that we may use the material you have provided. Know that the interview may be stopped at any time, and permission withdrawn, in part or in full up until the point of publication.

Your interview is now complete.

Ideally this will be done with an OWL facilitator.
Ideally, this should be done with a friend.

There are two disks. The top one has an image of your musical scale. This will sit towards the front where you can see it. The lower disk has two speakers that point upwards, as well as electronic circuitry and a battery pack underneath. Always put the bottom disk on first.

1. Step into the lower disk. Hold it, with the speakers to the front, just below waist height - on your hip, so your body is centred in the disk
2. Move the struts against your body and tighten the belt
3. Push the struts in tighter and screw them off. Make sure the belt is still tight
4. Check you are still centred in the disk, you can let go, and it is stable as you move
5. Now take the second disk and pass it over your head. This disk will sit above your waist.
6. Position the top disk directly above the lower disk. Attach the shoulder straps to hold it above waist height. Move the struts against your body and tighten the belt.
7. The straps should cross over at the back. Repeat steps 2-4
8. When the struts are screwed off and everything is tight against your body, attach the lower disk to the upper disk using the magnet wire, then turn on both switches on the battery pack (you may need help with this!)

now play!

hipDisk

Swing That Thing: moving to move
* The poetics of embodied engagement *
Ideally, this should be done with a friend.

1. **laserSpine**
   - put on the garment, with the lasers down the length of your spine. Connect them to the shirt with the press-studs.
   - turn the power switch on (down = on)

2. **in-visible skirt**
   - switch on all 6 motors, on the laser-belt
   - put the belt on, attaching the clasp at the front
   - turn on the controller, and sit it upright in a stable place
   - turn on the skirt module. It will be in the centre of your back. You may need to fuss a bit if you are on your own
   - place the controller on your body to control the skirt.

3. **inertiaLEDs - arm & leg bands**
   - attach the arm and leg bands so that the controller module sits towards the outside of your body
   - use the velcro straps and laces to ensure the bands are well attached
   - turn on each of the modules (switch towards the battery cable = on)

4. **inertiaLEDs - torso**
   - put on the garment
   - ensure the switch on the upper module is towards the wires (on)
   - then turn on the power supply (down = on)
   - now play!

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**Light Arrays**

*Swing That Thing: moving to move*

*The poetics of embodied engagement*
Ideally, this should be done with a friend.

**Step 1**

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>Pull on the modified compression garment, ensuring that the textile sensors all sit flat, then turn on the left-hand hip-module (away from the USB socket, or down = on)</td>
</tr>
</tbody>
</table>

**Step 2**

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>When the module light is flashing slowly, bend to the right as far as you can and press the button on the module.</td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td>When the light is flashing quickly bend forward as far as you can and then press the button again.</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td>The light should stop flashing</td>
</tr>
</tbody>
</table>

**Step 3**

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td>Now turn the right-hand module on.</td>
</tr>
<tr>
<td><img src="image6.png" alt="Image" /></td>
<td>When the module light is flashing slowly, bend backwards as far as you can and press the button.</td>
</tr>
<tr>
<td><img src="image7.png" alt="Image" /></td>
<td>Then, when the light is flashing quickly bend to the left as far as you can and press the button.</td>
</tr>
<tr>
<td><img src="image8.png" alt="Image" /></td>
<td>When all the buttons stop flashing the garment has been calibrated for your body</td>
</tr>
<tr>
<td><img src="image9.png" alt="Image" /></td>
<td>Now move your hips to draw, and jump and shake to erase!</td>
</tr>
</tbody>
</table>

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**hipDrawing**

Swing 'That Thing': moving to move

- The poetics of embodied engagement -
Ideally, this should be done with a friend.

1. Ensure sound is off

2. **Jerk-glitch**
   - Attach body-harness around your chest and over your shoulder so that the strapping is snug and the wii sits on your shoulder-blade.

3. **Leg Ratchetts**
   - Attach leg bands so that they are snug, and the wii sits on the outside of your calves.

4. **Speed Harmonics**
   - Attach armbands so that they are snug, and the wii sits on the outside of your forearms.

5. Turn sound on then play!

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**Swing That Thing**: moving to move

- The poetics of embodied engagement