

QUANTIFIED SELF

SHEENA BARRETT, KIERAN DALY, AND CLIONA HARMHEY DISCUSS THE COLLABORATIVE EXHIBITION 'QUANTIFIED SELF' WHICH RAN AS PART OF INNOVATION DUBLIN FROM OCTOBER – NOVEMBER 2011.

THE LAB Gallery shows emerging artists and emerging ideas. Increasingly, these ideas have led to collaborations and intersections with other disciplines including design, technology, science, astrology, architecture, dance and music. We have a core community of artists and build our audiences by creating a range of ways for people to engage further. The positive energy behind Innovation Dublin provided the impetus to further explore the connections between technology and art.¹

In recent years, Shimmer Research has been flagged in the media as a key example of Ireland's smart economy – an innovative company with growing exports; I called Kieran Daly to see if he might be interested in collaborating with some Dublin-based artists.

With Shimmer's commitment and the support of the Dublin City Council Arts Office and Arts Council, I invited artists Michelle Browne, Cliona Harmey, Saoirse Higgins, and Bea McMahon to consider the idea. At the outset, I met with the artists at the LAB and outlined what I hoped might be the benefits of taking this risk and working with Shimmer. We discussed the possibilities and challenges presented, our individual and collective expectations, agendas / rationale for getting involved, and also concerns about loss of agency or autonomy. On the basis of trust and respect for each other's (different) ways of working, we agreed to pursue the project.

The Shimmer technology offered the artists the means to measure a range of data using wearable sensors that could then transmit the findings in real time. Much thought went into what made sense for each artist to measure in relation to their ways of working, how that might actually be facilitated and form an exhibition.

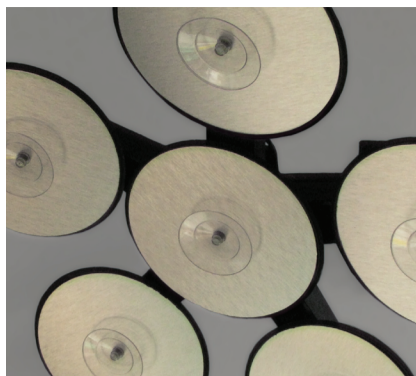
The artists visited the Shimmer Research facility and met with the team. It emerged very quickly that Shimmer Research were open to the risk-taking inherent in an artist's practice, and had plenty to contribute to the conversation, thought processes, and problem solving.

The processes of conversation, thinking, building and un-building, filming, risk taking, gambling and winning, walking and dressage, programming, synthesizing, collating data, questioning gaps, reading and discovering, ultimately evolved to create the exhibition, 'Quantified Self'. Each of the artists engage in very different practices and produced very different work in response to the parameters of the project. I think the process allowed them to make work integral to their practice, work pertinent and thought provoking in the context of this group show, but strong enough in its own right to be exhibited in other contexts.

Rachel O'Dwyer agreed to write a critical essay and curate a programme of events to stimulate debate around the range of interesting ideas that emerged through the process.² This was a vital part of the project as it provided a range of opportunities for critical engagement and responses. A cult-like audience emerged, and I think we were all sad to see the programme end. The events were recorded and their revelations, insights, disagreements, and reconciliations can be viewed online.³ We also developed a schools programme for transition year students around the idea of 'the self' with artists Bea McMahon and Theresa Nanigian, and education specialist Lynn McGrane; the project took advantage of the RHA's concurrent medical show, 'Apertures and Anxieties', to introduce younger audiences to contemporary practices.

'Quantified Self' was an exhibition of work by four really interesting artists working in Dublin today whose engaging collaboration with Shimmer ignited a series of further collaborations and provided a multifaceted forum for debate to challenge ideas around the artist's role in innovation and the possibilities of working with other disciplines.

Sheena Barret, DCC Assistant Arts Officer



Cliona Harmey, from 'Quantified Self', 2011



Michelle Brown, from 'Quantified Self', 2011



Bea McMahon, still from *One Letter Poem*, 2011

WHAT often draws me to working on a project is the group interaction it facilitates. With the 'Quantified Self' project, the opportunity to work with staff and see behind the scenes at medical devices firm was a definite lure. I began research for this project by investigating the history of various forms of medical imaging. These ranged from very invasive procedures (a lance through the eye, for example), to the use of other early medical devices such as pipes, tubes, mirrors, etc.⁴ Of particular interest was the story of Wilhelm Röntgen, who accidentally discovered the x-ray when a piece of paper, inscribed with a chemical in the form of the letter A, suddenly fluoresced in a darkened room. This linked the x-ray to a form of 'writing with light' and a specifically photographic world view.⁵ Röntgen experimented, allowing these initially unidentified rays to penetrate a series of materials: black paper, wood, card, books, and finally, flesh. A beautiful yet morbid x-ray he took of his wife's hand with her wedding ring on became an iconic image.⁶ Multiple versions of this, and similar images of other disembodied, jeweled, feminine hands, re-occurred in many early reproductions at the time, hinting at the unease and slight titillation caused by the uncanny exposure of the body's interior.

Pulling together these strands of interest into pieces of work became one of the challenges of this project. Another was engaging with some of the technology made available to me through Shimmer. Devices that store and transmit numeric representations of the body have the potential to change medicine and future depictions of the body. The title of the show identifies a contemporary trend towards monitoring the physical self, which these devices facilitate. What interested me most as an artist was the possibility of a curious collision of perceptions, of both the inside and outside.⁵

With the assistance of two technicians at Shimmer, we used small shimmer bluetooth devices to transmit a live pulse reading, which was used to interrupt and modulate lights in a sculpture.⁶ The sculpture, an assemblage of found and fabricated materials, emulated a surgical light. The pulse was read by attaching a sports pulse sensor to the arm of the viewer; this worked by emitting a small light against the user's skin, which was absorbed differently by each person, depending on the amount of oxygen in the blood. The sculpture became a self-referencing object where the output display (a pulsing light) directly mimicked the process by which the information was read into the system (another pulsing light). The viewer also entered the chain and became a part of the system when their heartbeat was influenced by their own perception of what was happening. Their awareness of being monitored often meant that their heartbeat sped up, and a number of people said they felt that, by engaging with the device, they began to control their own heart.

Turning a technology or system back on itself is something that has become part of my practice over the last few years. Often, I combine elements of older technologies (parts of cameras, lenses, supports, bellows, filing systems etc) with newer technologies (live data / camera feeds) to make sculptural works. The production of these assemblages, which combine elements from existing mass-produced systems, mirrors the way in which modern technological systems are constructed: from many different mass-produced components with modern and legacy systems overlapping.

In addition to *Watch*, which used the shimmer device, I made two other sculptural works: *Instrument* emulated a structure for measuring or scanning the body; *Silver* was a small sculpture of felt and waxed paper discs that referenced the type of flattened / sectioned view of the body we receive through x-ray imaging.

Cliona Harmey, artist

Notes

1. When, in 1559, Henri II was fatally injured jousting, physicians thrust a "lance through the eye sockets of four specially decapitated criminals" in an attempt to discover the nature of the king's injuries.
2. The Discovery of X-Rays/Wilhelm Roentgen, H J W Dam and others, John Carey (ed), *The Faber Book of Science*, 1995, 181
3. Akira Mizuta Lippit, *Atomic Light (Shadow Optics)*, University of Minnesota Press, 2005, 44–45
4. Dead Media Archive, NYU Department of Media, Culture, and Communication, http://cultureandcommunication.org/deadmedia/index.php/Roentgen_Ray_Tubealek.net
5. <http://quantifiedself.com/about/>
6. Special thanks to Florin Stroiescu, Mike Healy, Kieran Daly, and Karol O Donovan.

SHIMMER Research develops wearable sensors that capture kinematic and biophysical data. This data can be wirelessly transmitted, in realtime, to relevant parties be it clinicians, caregivers or indeed presented to the wearer of the devices. The technology is used in over 50 countries for a variety of applications in areas such as academic / clinical research, healthcare, wellness, and sports.

The development of 'Quantified Self' was engaging from the outset, and working with groups from outside our natural domain has helped us look at the shimmer technology through a different lens.

Our view is that innovation happens at the intersection of varying disciplines. Within the company we cluster different groups to generate new ideas – but moving outside of the organisation and working with the artists has highlighted some limitations in our traditional approach.

Jack Welch, one time CEO of General Electric, once said "How do you kill innovation? Put someone in charge of it." His point was well made: invention, advancement, and creativity thrive in fluid networks of people and ideas. We felt that the Innovation Dublin Festival was an important initiative and that Dublin City Council provided a progressive platform for diverse groups to interact.

Having reflected on the experience over the past few months a number of aspects of the interactions have been percolating. Firstly, I was surprised that the artists were concerned about our motivation and that we might exploit their ideas – in the business world this is an issue that raises its head occasionally, but as we move into an era of open innovation it's a concern that seems out of step with what is needed to get ideas realised. If you have thought of something interesting / revenue generating then chances are that others around the world are thinking / doing the same thing – in fact, you should be worried if there aren't. I think this speaks of a mistrust founded on preconceived notions about the business world. I believe (hope!) everyone overcame this during the project.

The meetings between each artist and our engineering teams were very interesting, and it was during these sessions that our worlds collided most directly. Our team struggled with the absence of defined detail and the shifting nature of what the artists were seeking. This group would very rarely interact in a formal sense with those who are not technical peers. It was a struggle at times but all comes down, in essence, to people having a conversation.

One element of the artists' work which really gave us food for thought was the nature and pressures associated with 'the big reveal' of an opening night. Companies tend to research, test, and trial anything they release and although this by no means guarantees success it does go some way to predicting the future. In the artists' case an opening night is a far riskier undertaking. Having had effectively no public feedback in advance of the show, there was no safety net in place beyond the individual artist's personal brand.

Another issue we did not fully consider was the definition of success. What did success look like for all involved? In the business world there are hard and / or soft metrics which are agreed in advance so we can understand if we've been successful. I struggled with the lack of definition around this area on the project as a whole and remain unsure if the measure of gallery attendance alone (a quantitative metric), which I believe was very high, tells us enough about the success or failure of the show.

Overall, the collaboration was very rewarding and pushed our company to explore new ways of working and interacting; so I can comfortably say that, for me, the show was a success.

We look forward to continuing the relationship with both The Lab and the wider artistic community and are energised by the possibilities these engagements open up.

Kieran Daly, VP Business Development, Shimmer

Notes

1. www.innovationdublin.ie
2. The essay and events programme, along with the artists' statements can be found in *Quantified Self*, a book published to coincide with the show, free to download here http://www.dublincity.ie/RecreationandCulture/ArtsOffice/TheLAB/Documents/QUANTIFIED_SELF_book.pdf
3. The Quantified Self events can be viewed on the DCC Vimeo channel <http://vimeo.com/dccartsoffice>