



**University of
Sunderland**

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DIGITAL ART EXHIBITION

Sat 14 November - Sun 28 February



THE LOWRY
ART & ENTERTAINMENT



R I G H T
H E R E
R I G H T
N O W

DIGITAL ART EXHIBITION

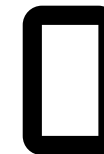
Introduction

This is an exhibition of some of the most exciting contemporary art in our time. A time that is increasingly dominated by our relationship with digital technology. A team of international guest curators nominated a number of artists for the exhibition, which was then curated by The Lowry. We have chosen a selection of artists who are defined as digital by their use of digital technology as a significant part and influence in their artistic practice. At this moment we are living through a digital change that is shaping our behaviour, understanding and view of humanity and the world around us.

These 16 international artists and their artworks expose new ways of visioning, creating and reshaping how we think about ourselves. They offer a series of methods that explore how digital technology is becoming part of our visual, sound and intellectual experience. The art is playful, thoughtful and challenges us to consider the digital systems embedded around us, either visible or hidden. Using surveillance, artificial intelligence, voyeurism, interruptions and distortions – we are able to immerse ourselves in art that considers beauty, privacy, self, permissions and collaboration.

Society is being altered as we become embedded into a digital age shaped by technology systems. From the phone in your pocket to the data you unwittingly give away, artists take a leading role in continuing to explore and question the cultural impact of these happenings.

Today's creative innovations still attract dreamers, critics and aggravators through the interrogation of digital social systems, economic systems and infrastructure systems. The Lowry is taking a moment to artistically see where we are, right here right now.



Lucy
Dusgate

Associate
Programmer
Digital for
The Lowry

When I think about what's going on right here and right now with digital technologies I think about the thing the Internet has become. I think about the ways in which our lives here now in the UK are increasingly networked and systematised.

Hannah Redler, exhibition guest curator

With open data, linked data, the internet of things and other technological developments are we "all systems thinkers now"?

Gavin Starks, CEO, Open Data Institute



Julia
Fawcett
OBE

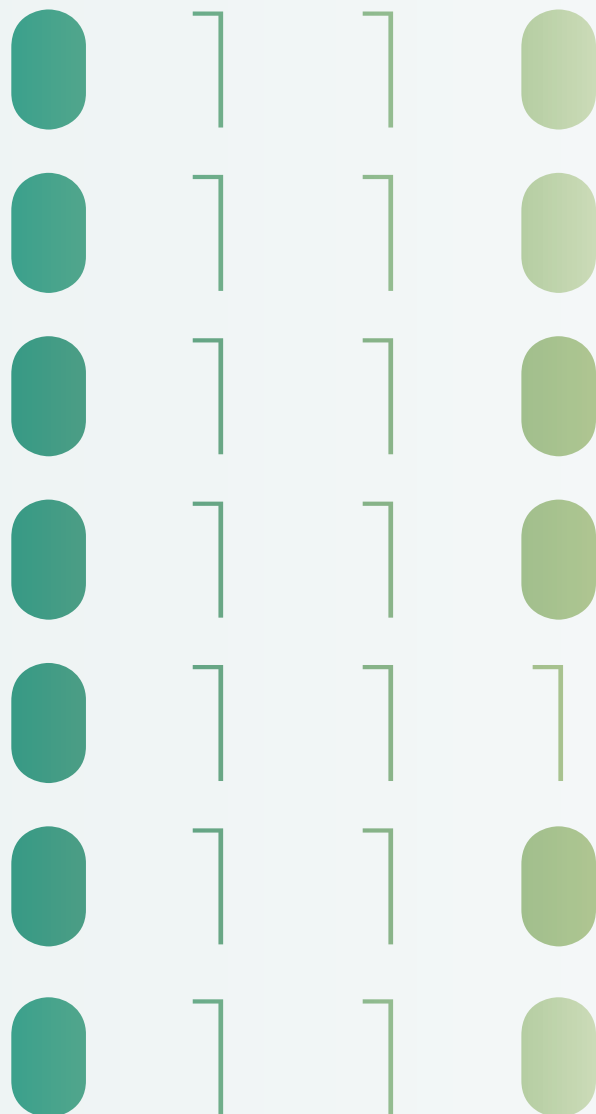
Chief
Executive
The Lowry

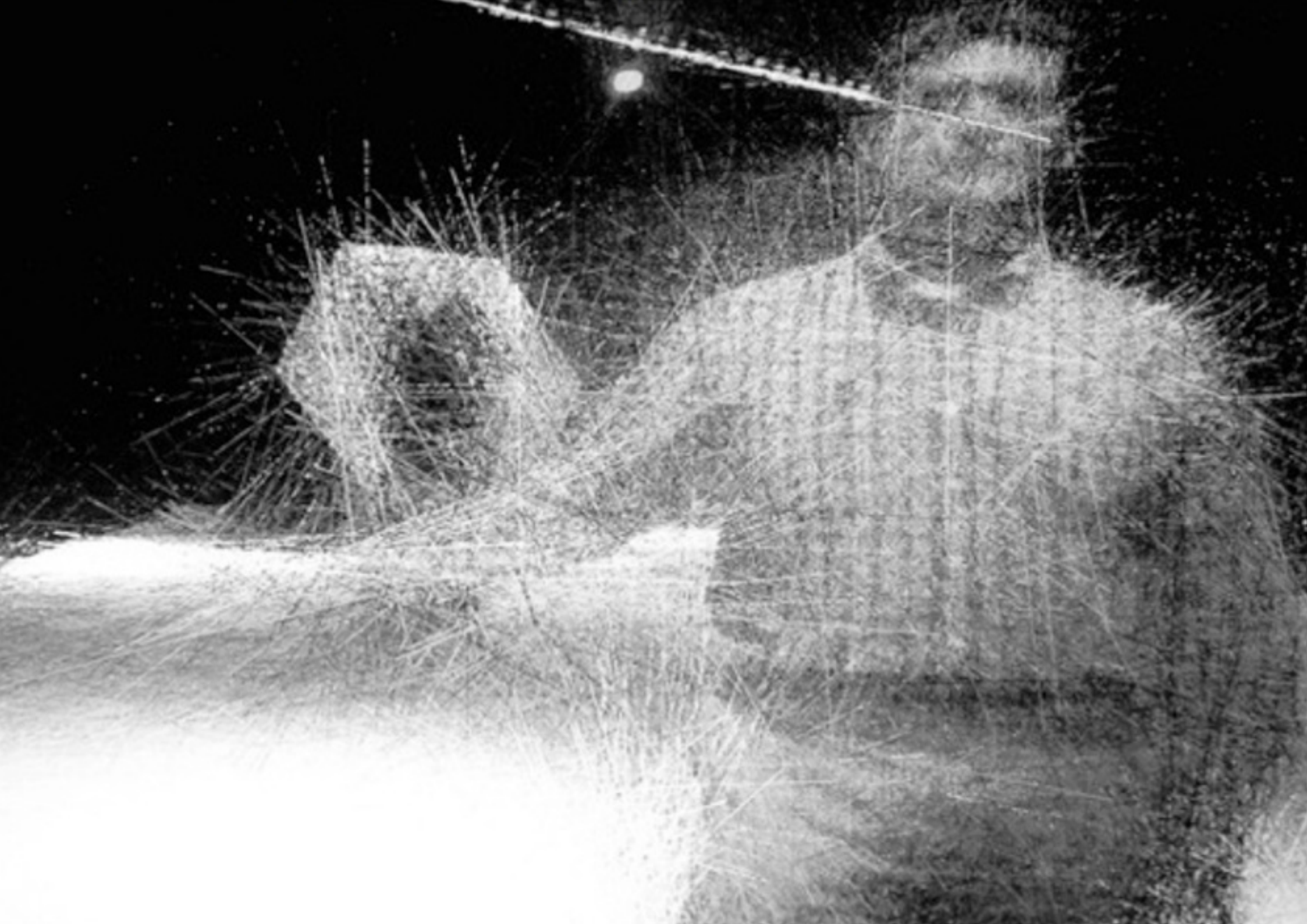
Foreword

The Lowry now sits at the heart of one of the most exciting digital communities in the world on MediaCityUK. Right on our doorstep there are clusters of digital technologists who are world leaders in the fields of education, broadcasting, gaming and healthcare to name but a few.

As the cultural centre
of this ever-growing
digital hub and visitor
destination, we want
The Lowry to be a
home and platform for
the phenomenal range
of digital artists
creating work today.

Right Here Right Now marks the beginning of an ambitious new strand of visual arts activity for The Lowry that will see us bring some of the very best artists working around the world to Salford to give new and different experiences to visitors to The Lowry and MediaCityUK.





Darwinian Straw Mirror is the first piece in the series of Darwinian Software Mirrors. The behaviour of the software is based on Darwin's theory of evolution by natural selection, by which organisms' heritable traits change over successive generations, based on a given environment. In this piece, programmed "evolutionary pressure" pushes the artwork to resemble the viewer's mirrored image. Interacting and responding to the presence of a viewer, each work varies in its formal properties of line, luminosity and tempo, as screen-based pictures are built improvisationally.

As the image increases in likeness to the surroundings, the evolutionary pressure lessens. Fewer straws are added, bringing the composition to a static resolution. However, any movement detected by the camera will change this, causing the evolutionary pressure to resume and setting the straws back into motion.

"Graphically, I find it very interesting to produce an image that is constrained by elements of endless straight lines. This problem was also investigated in X by Y (2010), which also creates detailed scenes using lines alone.

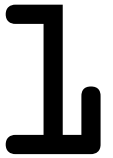
Elongated straight lines can accentuate some features of an image while repressing others, such as local detail. In the Darwinian Straw Mirror, its outcome resembles a quick charcoal sketch, yet this is produced entirely by a regime of randomness and selection."

Daniel Rozin

> The Artist

New York-based artist Daniel Rozin creates interactive installations and sculptures that have the unique ability to change and respond to the presence of a viewer. His best known works respond in real-time to recreate a live visual representation of the viewer's likeness, staging the audience as an active, creative and integral part of his pieces. Merging the geometric with the participatory, Rozin's installations have long been celebrated for their kinetic and interactive properties. Grounded in gestures of the body, the mirror is a central theme of Rozin's practice: surface transformation becomes a means to explore animated behaviours, representation and illusion.

Rozin has exhibited around the world and his work is held in numerous public and private collections. The recipient of numerous awards, including the Prix Ars Electronica, I.D. Design Review, Chrysler Design Award, and the Rothschild Prize, Rozin is an associate arts professor at ITP in the Tisch School of the Arts at New York University. He earned a BD at the Jerusalem Bezalel Academy of Art and Design and an MPS from NYU. He lives and works in New York.



Daniel
Rozin

Darwinian
Straw
Mirror

2015
USA

*2010 video camera,
custom software,
computer, 46 inch screen
dimensions variable,
horizontal or vertical
Edition of 6*

*Courtesy of the artist and
bitforms gallery*



A bright multicolour laser beam scans a black reflective sheet of plastic hanging freely from the ceiling. Most of the light is absorbed by the plate and turned into heat. A small part is reflected to a white screen or white wall. The heat creates permanent deformations of the plate, which leads to more and more complex reflection patterns over time. There is no strict separation between 'writing' changes to the plate and 'reading' the deformation. The observation process is destructive.

The characteristic visual appearance of the installation is a result of interference patterns, waves amplifying and cancelling each other out in space, leaving complex traces of light and darkness, expanding and contracting forms that have a semi-organic appearance.



The installation incorporates a sonic layer a slowly changing soundscape created by the same algorithms which drives the movement of the laser beam. Destructive Observation Field was originally conceived for Le Fresnoy Studio National des Arts Contemporains, Lille, France, and was shown there in June and July, 2014. In August 2014 it was exhibited at Kunstwerke KW Institute for Contemporary Art in Berlin and in March 2015 at the STRP Biennial in Eindhoven, The Netherlands.

> The Artist

Robert Henke is an artist working in the fields of audiovisual installation, music and performance. Coming from a strong engineering background, Henke is fascinated by the beauty of technical objects. Developing his own instruments and algorithms is an integral part of his creative process, in which he uses computer generated sound and images, field recordings, photography and light materials, with a particular focus on the exploration of spaces, both virtual and physical. For the past few years, he has been exploring the artistic usage of high power lasers in his installations and performances.

Henke regularly writes and lectures internationally about sound and the creative use of computers. His installations, performances and concerts have been presented worldwide, including Tate Modern London, the Centre Pompidou Paris, PS-1 New York, MUDAM Luxembourg, the Art Gallery of New South Wales in Australia, STRP Biennale Eindhoven, and on countless festivals. Robert Henke lives and works in Berlin.

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Robert Henke

**Destructive
Observation
Field**

**2014
Germany**

*Laser, perspex
and projection*

A-Charge-for-Privacy:-user\$ run acfp.exe

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=====
#                               #
#   IPHONE-CHARGING-STATION   #
#                               #
#   Please read the terms of use carefully as your   #
#   use of this charging station signifies that you #
#   have read, understand and accept, without      #
#   reservation, these conditions.                  #
=====
```

A-Charge-for-Privacy:-user\$ ensure that your iPhone is unlocked in order to properly use this charging station
A-Charge-for-Privacy:-user\$ █



We increasingly communicate through the Internet and maintain our relationships on the net. E-mail and social networking websites such as Gmail and Facebook have become an important repository for personal, sometimes even intimate, information. But as the installation 'A charge for privacy' shows us, privacy in our digitally mediated age is a misconception.

The station welcomes visitors to charge their mobile phones for free. The only thing they need to do is to agree with the Terms of Use, which are written on the outside of the transparent cube housing the power supply. As is mentioned within these terms, when a phone is plugged in and charging, all the images stored on the phone are downloaded and projected, heavily distorted, on the wall next to the charging station.



The artist collective Branger_Briz describe privacy as a sort of 'techno-age currency'. Most online media services are provided are free of charge, as long as we, the users, agree that these companies are allowed to collect and archive our personal data. By making this process transparent within their project, the artists are raising awareness of the fact that even if the social media companies operating on the Internet do not charge us money, we nevertheless pay with our (personal) data. Your parents' generation would feel outraged if their home phone were tapped without their knowledge or legal basis for doing so, but we rarely think about the fact that at all times the location of our mobile devices, the services we use and transactions we make on them, can be tracked and logged. This artwork was made in 2011, about the same time as it was revealed that the phones of murdered schoolgirl Milly Dowler, relatives of deceased British soldiers and victims of the 2005 London bombings had been hacked by News International. After the revelations of large-scale surveillance and data capture by Government agencies as detailed by Edward Snowden in June 2013, these processes and their legality (or not) are even more widely debated.

> The Artist

Branger_Briz is a collective of artists, educators and programmers formed in 1998 by Nick Briz, Paul Briz and Ramon Branger, among others. It has since grown from 5 people to more than a dozen. The behaviour of the user is an important starting point and often a key issue within their creative projects. Before Branger_Briz came into existence, its members were part of a more traditional marketing firm, 'The Alten Group'. They decided to re-organize their company with a focus on confluence of digital technology and culture, as for them contemporary culture and digital culture are indistinguishably connected.

Their charging station was first programmed and installed at two commercial art shows during Art Basel Miami and later at the Neuberger Museum of Art in Purchase (NY). This installation version has been produced by Furtherfield where it was included in an exhibition curated for the International Symposium on Mixed and Augmented Reality in Munich, and later in their London gallery in Beyond the Interface.

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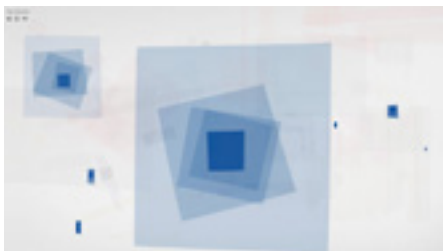
Branger_
BrizA charge
for privacy2011
USA*Computer Monitor
and flat screen*



Julie Freeman uses data as an art material. Her work responds to the abundance and malleability of data, as well as challenging common perceptions of data as 'proof', 'truth' or 'evidence'. She encourages us to consider the meaning of data beyond its content.

We Need Us is a live, online, animated art work powered by people using the web. Created in collaboration with Zooniverse, the largest crowd-sourcing citizen science website in the world, it explores both 'life data' and, more philosophically, the life of data. It investigates what distinct, living qualities and particular characteristics data might have, such as growth, velocity and fragility, raising the question: if data had a life of its own, what would it be?

Clusters of hand-drawn, flat-coloured, graphic forms, all squared, oblong or rectilinear, are accompanied by an ambient soundscape. Pulsing, rotating, enlarging or reducing, some stand alone, others congregate in groups alongside each other or in layers. Sounds from the natural, electronic and machine worlds accompany the discrete motion of each individual form.



We can select a composition from ten different titles such as Galaxy Zoo, Bat Detective or Plankton Portal. The objects, sounds and motion in each composition are driven by data from projects of the same name running on Zooniverse. Not the 'useful' taxonomic and scientific data which is the focus of the website, but the metadata (data about data) of citizen scientists' real-time activity as they click and swipe online around the globe. We Need Us harnesses this online labour and translates it into a contemplative work without human input, the animation ceases to be.

Freeman is interested in how deeply involved with data our lives are today, even unwittingly. Her concentration on the metadata that normally remains unnoticed and unseen exposes a continuing momentum of human activity. By capturing and translating the data created by the on-going altruistic labour of Zooniverse contributors' activities, We Need Us raises questions about the humanity at the heart of data landscapes. Its title reminds us that we need each other, 'us', as much as we need data and technology.



The work is available at weneedus.org

> The Artist

Julie Freeman's work spans visual, audio and digital art forms and explores how science and technology change our relationship to nature. She creates sculptures, installations, sound works and online artworks, most often through digital and electronic forms and frequently in collaboration with other practitioners and experts across the arts and sciences. A TED Senior Fellow, former NESTA Fellow and graduate of the MA in Digital Arts at the Centre for Electronic Arts, Middlesex University (1996) she is currently Art Associate and co-founder of the Data as Culture art programme at the Open Data Institute, and is based at the Media and Arts Technology lab at Queen Mary University of London.



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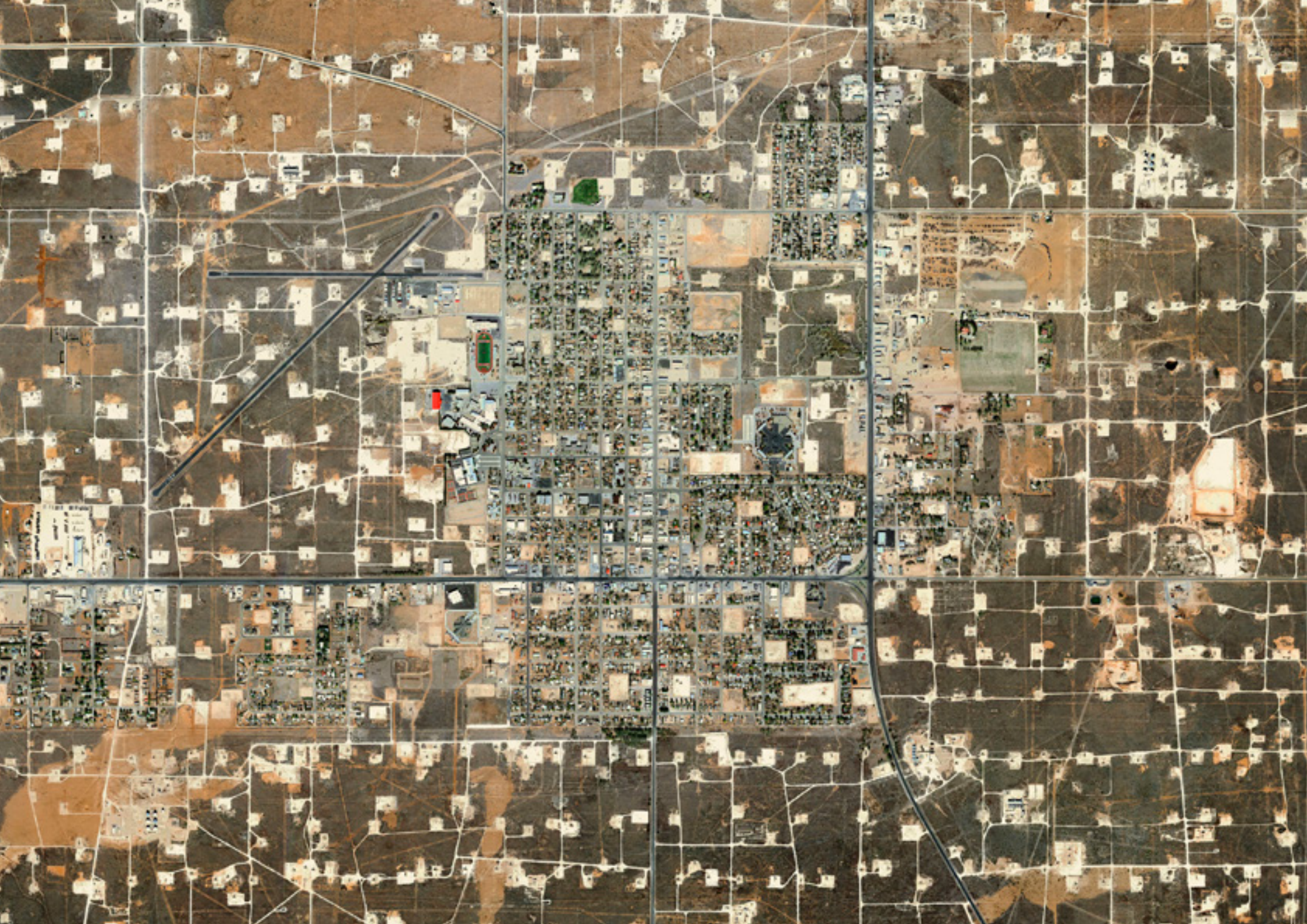
Julie
Freeman

We Need Us

2014 -
Ongoing
UK

*Real-time, online,
animated artwork.
Algorithms, drawings,
live metadata from
zooniverse.org*

*We Need Us was
originally Commissioned
by the Open Data
Institute (ODI) and
The Space.*



The Fields which these three works are from, is a series of large-scale images, knitted together from satellite photographs openly sourced from the Internet.

Rather than flying in an airplane across the States with a camera, Henner's images have all been compiled in his studio. Through scouring Google Earth Pro, and painstakingly stitching images together, he shows the world from a perspective rarely seen and often deliberately not acknowledged.

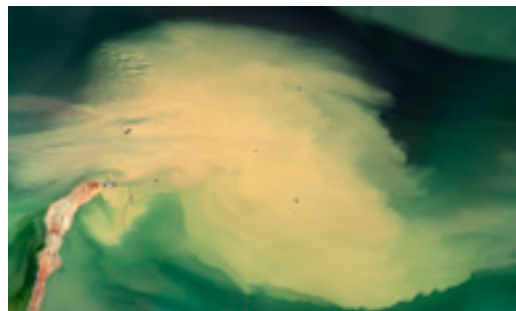
At first the images are beautiful and aesthetically pleasing. There is a familiarity about them, reminiscent of the American Abstract Expressionist paintings of the 1940s and 1950s (Rothko, Pollock, de Kooning). However the closer the viewer gets to the images, the more sinister they become. Slowly it is apparent that they are large photographs of landscapes, or oil fields in the USA to be precise. The detail is such that the viewer can see individual houses and cars of the workers in Wasson Oil Field.

Whether in the deserts of California or Texas, or in a bay in the Gulf of Mexico, what is clear is the scale of how the earth is being exploited. Through the construction of hundreds of pump jacks to suck our oil fields dry, or the building of new sandbanks, the Earth is being significantly altered. The commodity of oil, and how humans depend on it is deemed

more important than the potential long-term damage to the environment.

With this series, Henner's use of a technology available to anyone with an Internet connection allows the public to see what is in front of them, but that they cannot ordinarily see. Perhaps something to be considered right here, right now in relation to proposals for fracking? He writes:

'I never get tired looking at your landscape. Its skin carries the scars of your obsessions and afflictions... Depending on how you choose to read it, you're either a vision of the future or a gigantic warning sign.'



> The Artist

Mishka Henner was born in Brussels, Belgium and now lives and works in Manchester. Having originally studied Sociology, his current practice developed through working with documentary photography. He is one of a new generation of artists who explore the depths of the Internet to find source material.

Henner has been short-listed for a number of major awards including the Prix Pictet (International, 2014) and the Deutsche Borse Photography Prize (London, 2013) and received the Infinity Award for Art from the International Center for Photography (New York) in 2013.

He has exhibited extensively internationally and his work is in the collections of the Victoria and Albert Museum, London; the Centre Pompidou, Paris; Metropolitan Museum of Art New York and the University of Salford.

Exhibited in Right Here, Right Now: Cedar Point Oil Field, Harris County, Texas, 2013, University of Salford Art Collection

Wasson Oil Field, Yoakum County, Texas, 2013, University of Salford Art Collection

Kern River Oil Field, Kern County, California, 2013, Carroll / Fletcher

5

Mishka Henner

The Fields

2013
UK

*Archival Pigment
mounted to aluminium
in tray frame*

*Courtesy the artist,
Carroll / Fletcher and
the University of Salford
Art Collection*



I donate because

Planthropy is an installation of plants that explores the intersection of social media, philanthropy and finance. Planthropy is part of a wider series of works titled Reversal of Fortune and evolved out of earlier works that explore new forms of online, digital labour and virtual economies. After examining crowd-sourcing in projects like Invisible Threads (2008) and Laborers of Love/LOL (2013) (in collaboration with Jeff Crouse), Planthropy now explores the phenomenon of crowd-funding, where a dispersed group of people lend small sums of money (micro-lending) to fund a common project. More specifically, it focuses on how social media platforms, specifically online crowd-funding, are facilitating new forms of charity-based micro-lending.

Micro-lending emerged in the 1990s and its main aim was to help people in undeveloped countries to set up their own business. In the past few years' due to the popularity of sites like Kiva and Global Giving, more attention is given to charity-based donations, merging social progress with business goals and micro-funding with micro-lending. As mentioned by Rothenberg,

"The result is a 'marketization of philanthropy', a philanthropy for the masses, producing a new breed of loan-borrowing 'entrepreneurs' rising from the depths of the global poor."

(Rothenberg 2015).

Whilst it is known that this new hybrid is not necessarily profitable for those in need, it is interesting to see how it spurred an increase in philanthropic actions. In an attempt to unpack the inherent contradictions within this crowd-funded philanthropy, Rothenberg created Planthropy.

To emphasise the relationship between the real and the digital, the organic and the cultural, and the commercial and the charity, rather than presenting the digital inside the digital, Rothenberg wanted to create something more tactile and visceral. Planthropy consist of several Wi-Fi enabled hanging plants. Each plant is connected to a specific cause, for example breast cancer or homelessness. Every time someone tweets about one of these causes, the watering system for that corresponding plant is activated – clearly demonstrating the tight relation between the ethical and reputation economy. At the same time a computerised voice speaks aloud the donor's reason for donating and statistical information about the charity scrolls down a small LCD display attached to the plant. The garden of illuminated hanging planters constructed from clear plastic tubing sits between 70s hanging planters, a laboratory setting and a trade market. Taking place at irregular intervals, similar to the charity receivers, the life of the plants is dependent on micro lending transactions happening in real time on the Internet. Whereas the installation presents a global warm and delicate 'heartbeat' of flickering messages its

sterile environment and the sound of the synthetic voices emoting the feelings of lenders is also disconcerting. The installation presents the interplay of affect, imago, technology and economic forces through the biological.

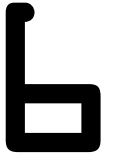
"With every 'like', the privileged are empowered to empower the global entrepreneur in a seamless circuit of warm and fuzzy affective production."

(Rothenberg 2015).

> The Artist

Stephanie Rothenberg uses performance, installation and networked media to create provocative public interactions. Mixing real and virtual spaces, her work explores the power dynamics between contemporary visions of utopian urbanisation and real world economic, political and environmental factors.

She has exhibited throughout the US and internationally and is a recipient of numerous awards, most recently from the Harpo Foundation and Creative Capital. Residencies include the Lower Manhattan Cultural Council Workspace, Eyebeam Art and Technology and the Santa Fe Art Institute. Her work is in the collection of the Whitney Museum of American Art and she is Associate Professor in the Department of Art at SUNY Buffalo.



Stephanie
Rothenberg

Planthropy

2014
USA

*LCD, perspex,
soil, plant and live
internet connection*



Felicity Hammond is a photographer and installation artist who is interested in documenting the relationship between the redundancy of manufacturing and industry, and the rise of technology in modern life. *Restore to Factory Settings* is a large-scale, tableau photograph which presents an uncertain moment. A deconstructed, or possibly reconstructing, urban landscape sits precariously between its past and potential futures. A bright uniform cyanotype blue defines the picture. Rolling hills reminiscent of classical landscape painting frame distant architectural features. A central area of intense detail holds our attention in the foreground. But rather than the Mediterranean hills and footpaths of Classicism, the forms folding in and out of each other are a collage of industrial slag heaps. Multiple vanishing points create a sense of unease. The architecture is not pretty landmarks or follies but jutting cranes, chutes and building plants. The focal point at the centre is a tangle of rubbish; discarded domestic and building materials tumbling over tarpaulins and industrial waste.

Hammond's choice of blue captures a paradox at the heart of her project. The cyanotype is the low-cost process traditionally used in engineering, architecture and industry to create blueprints - symbols of new beginnings, hope and transformation. In technology it is also the colour of the blank error screen. Felicity Hammond says:

"Blue is the colour of the screen when it is unable to transmit information; it is a miscommunication, an error report, a simulation substitution. It is the print of future planning yet it is also failure, already redundant."

The uncertain world of *Restore to Factory Settings* has been constructed by the artist. It has been digitally assembled from a series of photographs she took around London during the run-up to the 2012 Olympics, more recently in areas of urban regeneration, particularly around the factory site in which her own family lived and worked. The piece is part of an ongoing series in which she considers regeneration as a form of contamination as much as a potential cure. It is a deliberately allegorical photograph which describes our modern condition in the West; navigating the convergence of built environments with less tangible but arguably no less real technological and 'virtual' spaces. Hammond's considered use of layering also deliberately echoes the carefully constructed visual language of developers' marketing brochures in which the promise of perfect living is presented through high-tech 3D modelled photorealism. Her blunter 'reality' is more dystopic and filled with bitter-sweetness, as the quality of her image-making

presents something that is arguably more beautiful. In identifying the losses that accompany progress her work creates a sense of longing and raises questions about the histories and potential futures of the material world as our hopes and dreams are increasingly shaped by technology.

> The Artist

Felicity Hammond is a recent graduate of the Royal College of Art (2014), where she completed her MA in Photography and was awarded the Metro Imaging Printing Award. Photography is her dominant medium but she also creates objects and sculptures, often printed with her photographic imagery and creating a tension between surface and form. Many of her works are created as ongoing series that evolve over time. Hammond was a finalist for the Catlin Art prize 2015. She has appeared in numerous national and specialist publications including in 2015 *Dazed Digital* '40 of the UK's most promising artists' feature and *Wallpaper* magazine's 'world's hottest new talents in photography' Graduate Directory.

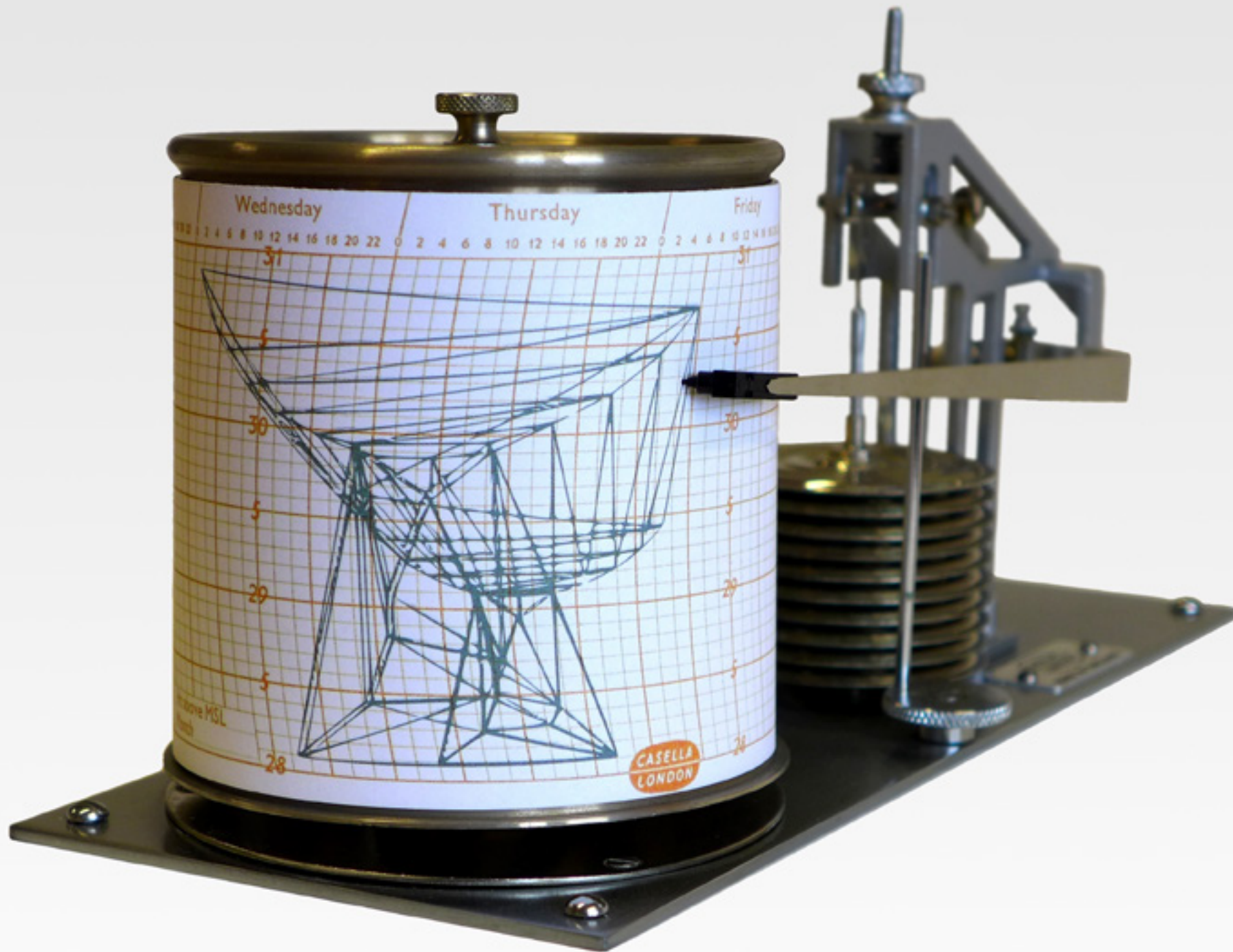


Felicity
Hammond

Restore to
Factory
Settings

2014
UK

*C-type
photograph*



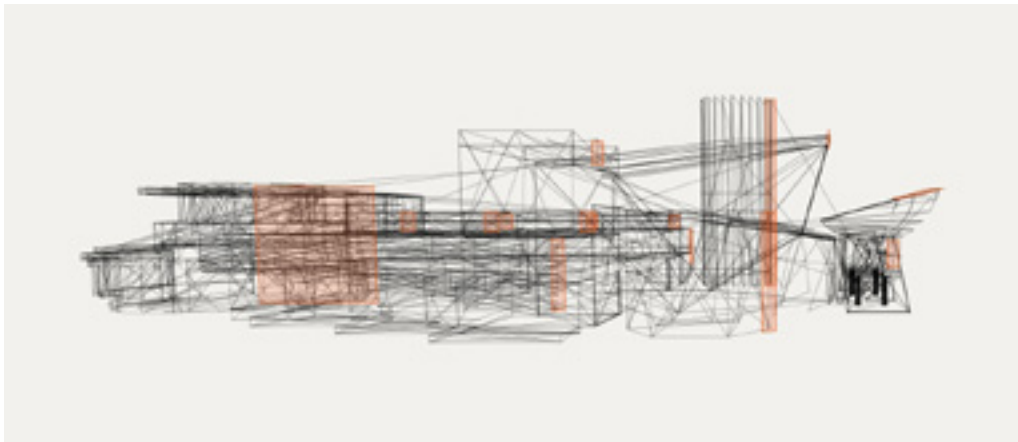
Barographic is a site-specific composition project, creating graphic scores from atmospheric pressure data, and using the architectural form of the venue as an animated, 3D animated sequencer.

The process reflects on different approaches to interpreting the built environment (and the manner in which architects invoke a sense of rhythm and flow through their designs), and captures something that represents our perception of 'atmosphere' – something less tangible but central to our experience of public spaces.

For the first phase of the project, a clockwork barograph is installed in the venue. Over the course of the exhibition, a series of graphs are produced, charting changes in atmospheric pressure in the venue. This mechanised process creates the graphic scores which form the central elements of the composition. Alongside these scores, the venue's architectural structure is used as a 3D animated sequencer, creating melodies and rhythms that correspond to patterns that are inherent within the design of the building. The composition process uses Iannix, an open source graphical sequencer.

Live performance

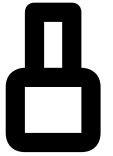
The final composition will be performed live in The Lowry galleries on Sat 6 February from 5pm, 2016. This is part of The Lowry's After Hours programme.



> The Artist

Ed Carter devises and creates interdisciplinary projects that are context-specific, with a focus on sound, composition, architecture, and process. He takes patterns, associations, and chronology, and uses these to form the structures of new site-specific work. He has produced ambitious, large-scale work in collaboration with a wide range of partners including architects, scientists, boat builders, and programmers, and has received commissions and awards from diverse organisations, including Arts Council England, Ordnance Survey, Channel 4, PRS Foundation, Cancer Research UK, and the Royal Academy of Engineers.

The floating tide-mill installation on the River Tyne (Newcastle-Upon-Tyne, UK) was one of twelve major commissions created to celebrate the 2012 Olympics. More recently, in 2015, Ed was commissioned alongside architect (and regular collaborator) Nicholas Kirk to create "Cyclic & Continuous", a permanent, data inspired pavilion for the grounds of Ordnance Survey's new headquarters (Southampton, UK).



Ed Carter

Barographic

2015
UK

*Barograph,
barograms, graphical
sequencer (video),
sound*



Text by Hannah Redler

Online artwork, not on display in the galleries. You can access it at indirectflights.com

Please note the smartphone version does not include the soundtrack.

Joe Hamilton created Indirect Flights to be experienced online. The piece presents raw materials, satellite images, organic textures, brush strokes from famous landscape paintings and architectural fragments blended together into a panorama extending in all directions. It reflects Joe Hamilton's interest in depicting contemporary landscape as we experience it, from multiple direct or remote perspectives. Indirect Flights examines our changing relationship with landscape in relation

to the ways in which, the artist says

"our experience of the world today seems to involve different geographic locations collapsing into a single visual frame."

Interested in the influence of digital imagery and data streams on our perceptions of landscape, Hamilton started looking at found aerial photography and then visited landscapes in the Middle East, Asia and Europe to directly photograph source material for the work. He selected his final material according to its relationship to flight paths, creating an experience that is dependent on a network of airports and scheduled

flights. Viewers interact with the work using everyday navigation tools familiar to users of Google maps. The layers of disused or temporary buildings, satellite imagery, building materials, rocks, minerals and expressive paint-marks move at different speeds constantly changing what is hidden or exposed and creating an illusion of depth. Biberkopf's soundscapes are equally eclectic; clattering, acceleration, electrical hum, sonic boom and white noise blend into hard things falling and rolling, crickets, heat, darkness. Sounds range from controlled cacophony to focused precision. As viewers pan around the landscape they reveal and alter both composition and soundscape with their own trajectories.



Regular Division is a moving image landscape composed of video and images from geographically disconnected places that are brought together to create a new hybrid place. Joe Hamilton skillfully blends different materials and sources, working with the visual language of the network in response to the ways we can access multiple pieces of information simultaneously in different formats. Footage captured by the artist from England, Japan and Berlin, along with found images from other countries, is accompanied by an ambient soundtrack. A continual slow camera pan runs evenly across architectural greenhouses, lush vegetation, water features, elaborate stonework and ornate steelwork. As it passes languorously over and between disparate times and places, ambient

sounds are penetrated by echoes of recognisable noises - a waterfall, voices, a snapped branch. The different locations likewise exist alongside each other and within each other's pictorial space - a window frame reflects or offers sight of an alternate landscape, a walkway from England traverses vegetation from elsewhere. Further defining and confusing the sense of space are abstracted brush marks from traditional landscape paintings. These are placed across the surface of the image, occasionally also penetrating deeper planes of the film environment. Culled from high-quality digital reproductions of paintings by Vincent van Gogh, Richard Diebenkorn, Henri-Edmund Cross or Arthur Streeton, their removal from their original contexts negates their original purpose of conveying tangible reality

on a flat canvas. Here, their presence reveals the artifice of Hamilton's hyper-photorealistic digital reality whilst at the same time anchoring it in the ongoing histories of landscape.

> The Artist

Joe Hamilton's practice is concerned with rethinking the distinction between nature and the built environment, and in considering the fragmented way we experience the world, through multiple series of continually overlapping windows on the screen. He identifies social media, the aesthetic language of the network and online environments as fundamental to his work. Originally trained in fine art at the University of Tasmania he achieved an MA in Art in Public Space from RMIT, the Australian public university of technology and design in 2011, where he considered the Internet as public space for his final thesis. He has exhibited internationally and been featured in art and technology press including Frieze and Wired magazine.

9

Joe
Hamilton

Regular
Division

2014
Australia

Digital film,
90 seconds, looped

Indirect
Flights

2015 -
ongoing
Australia

Website with
soundscape by
J.G.Biberkopf



UK-based artist Nikki Pugh explores relationships between people and places. Interested in the physical and the emotional experiences involved, she uses a range of techniques including digital technologies, physical computing, walking and performative actions in public spaces.

Participatory phases often inform the development of projects, as well as animating the resulting assemblages of materials, data, people and place. Careful attention is paid to the subtleties of interfaces, with technology embedded in sculptural forms that blend craft-based fabrication processes with digital tools and electronic circuits.

Regarding the process as research and the final constructions as tools, she asks: what affordances the use of these devices has for prompting us to relate in different ways to our surroundings, our fellow humans and our mobile devices?

Colony is an exploration of how we navigate public space: a small group of people each carry a landscape-reactive 'creature' that uses real-time processing of GPS data to determine its movements. As the group moves across the city, the creatures react to their surroundings depending on their programmed claustrophobic or claustrophilic personalities.

The two creatures on display have been specially commissioned by The Lowry and are part of an ongoing project being

developed through a series of prototypes and playtests. Early experiments saw people carrying vibrating bundles of bubblewrap through the post-industrial landscape of Birmingham, finding excuse and entitlement to explore slightly grimy alleyways or listen to what doorways felt like. A later iteration explored assumptions about secrecy and convenience with large, heavy, cumbersome wooden tubes that hammered out signals according to how built-up the surroundings were. Landscape-reactive sashes questioned what it was like to move as part of a networked group.

The form of the creatures on display at The Lowry is distilled from the outcomes of these experiments and indicates how the final design will move in response to the incoming GPS data. Since you cannot generally receive GPS signals inside buildings, here they have been programmed to remember a journey they recently undertook.

Watch as they re-live the experience of being carried around the Salford Quays area. Their movements are determined by the radio signals they receive from the constellation of GPS satellites around Earth and the effect the built environment has on the accuracy of the resulting positional calculations.

Nikki continues to develop Colony, with next iterations of the design enabling the creatures to detect if they have become separated from the rest of the group. She is also experimenting with the narrative of

the events through which the creatures are used and the affordances the combination of these give for providing new experiences of moving through the city.

> The Artist

Nikki Pugh has studied in Birmingham, Dudley and most recently at the University of the West of England, Bristol. She co-founded and worked extensively with BARG (pervasive games network) and fizzPOP (hackspace). As founder of the Many & Varied collective, she is also currently working to establish networks, develop audiences and manage events to support an ecosystem of boundary-pushing, interdisciplinary and collaborative creative projects.

Artist statement: I locate my practice as being at the intersection of people, place, playfulness and technology. Instigating enquiry-led processes that are often participatory in nature, I'm primarily interested in issues around interaction: how we interact with spaces and landscapes; how we interact with each other; and how we interact with objects. Typically I will instigate a starting point and a mechanism to support exploration, discussion and criticism. My practice encompasses locative and digital media, walking, performative actions in public spaces (in turn, including pervasive games), installation, physical computing and collaboration.

LO

Nikki
Pugh

Colony

2015
UK

*Plywood,
robotics
and GPS*



Corruption text by Lindsay Taylor

Corruption: By taking everyday technologies as their medium, artists Thomson & Craighead look at the world in a different way. The Corruption series is a number of colourful, seemingly animated light boxes. Elements of the imagery are strangely familiar and the work appears quite painterly, yet the title denotes a darker background.

Each light box is made up of 12 frames that the artists have taken from a corrupt video file they have found online. Normally, corrupt files are meant to put a virus on the computer that downloads them, however, the artists discovered that if they are opened in certain video-playing software the file's content appears pixellated, colourful and beautiful.

They have celebrated these visual abstractions further by using a lenticular printing process, usually used for novelty items. The layered still images appear to be 3-Dimensional and to move as the viewer passes by. The playfulness in the work is undercut by the fact that the files they are based upon are computer viruses, designed to steal information from, or corrupt a computer's files.

Stutterer: When the Human Genome Project completed the first documented human DNA sequence in 2003 it was to huge worldwide media attention. Stutterer (2014) is an instructional artwork in which the instruction is based upon this sequence. It is a poetry machine, playing a self-assembling video montage that spans the 13 years it took the Human Genome Project to 'finish' decoding human DNA. This genetic sequence that makes us human is described as a unique recipe. It is read by machine as a string of 3.2 billion instances of the letters T, A, G and C, each representing the nucleotide base pairs of DNA (Adenine, Cytosine, Guanine, Thymine). Stutterer uses the code as a kind of musical score to draw on a database of television video clips culled by the artists from online sources. These clips have been cut to single words that start with the letter A, C, G, or T. So each letter appears in the work on one screen in the DNA code and on the other screen as a spoken word.

"Terrorism / Afghanistan
/ God / And / And /
Genetics / Clone / Apple
/ ..."

These video clips are all taken from English language television broadcasts made sometime between 1990 and 2003. The montage appears as incredibly current, and slightly nostalgic – opening a fragmented view on the almost unfathomably significant changes the world experienced in that period, from the release of Nelson Mandela from prison in South Africa, via the rise of social media and the cloning of Dolly the sheep, to the fall of Baghdad to a US and British military coalition.



While the DNA code is scripted, the software chooses each clip at random, so it stutters through its reading. As a kind of performance, the work isn't designed to play more than once. The one time it will play, will take until sometime around the year 2080. What you are watching now, won't play again. It will outlive you, and almost everyone viewing the work in an exhibition, as well as the technology that it is playing on. Stutterer started in October 2014 and was continuously exhibited until January 2015 in LifeSpace gallery at the School of Life Sciences, University of Dundee, where analysing DNA is a daily activity for the school's scientific researchers. Each time the programme is turned off and back on,



it knows exactly where it stopped, so that at the point of turning it on for this exhibition it had made its way through nearly 3% of the sequence. It's aging.

Each time the work is exhibited the artists infuse the database with more video content (just as scientists continue to publish new updated versions of the human genome sequence), making Stutterer's view of the world more complex. It is difficult not to anthropomorphise our technology, and this installation reflects that. Stutterer is a human monument of sorts, which seeks to connect our biological fabric with our unique linguistic abilities – the very abilities, which have arguably enabled us to apprehend our own DNA in the first place.

Commissioned by LifeSpace Science Art Research Gallery with support from The Wellcome Trust.

> The Artists

Jon Thomson and Alison Craighead live and work in London and Kingussie in the Highlands of Scotland. They make artworks and installations for galleries, online and sometimes outdoors. Much of their recent work looks at live networks like the web and how they are changing the way we all understand the world around us. Their works often recombine text, image or video material found online, according to a conceptual framework, making their artworks almost like instructional scores. Their work has involved use of material from Twitter, YouTube, Internet search engines, blogs and photo sharing sites such as Flickr.

Having both studied at Duncan of Jordanstone College of Art and Design. Jon now lectures part time at The Slade School of Fine Art, University College London, while Alison is a senior researcher at the University of Westminster and lectures in Fine Art at Goldsmiths University. They have exhibited extensively around the world and their work is in public collections including Victoria and Albert Museum, London; National Media Museum, Bradford; Arts Council Collection; British Council Collection and the University of Salford.

Thomson & Craighead

Corruption

2014
UK

*6 light boxes
from series of 12*

*Courtesy the artists,
Carroll / Fletcher and
the University of Salford
Art Collection*

Stutterer

2014
UK

*Two channel
digital installation
Generative software
development by
Matt Jarvis*

*On loan from the
University of Dundee*



Emily's Video compiles the reactions of people watching a mysterious video. The viewers are random volunteers who replied to the artists' online call to watch 'the worst video ever'. They were each visited in their homes by a girl named Emily - hence the title - who showed them the video, filming their reactions with a webcam. The artists later destroyed the original video, which had been sourced from the Darknet, what they describe as "the Internet's disturbing alter ego". The viewer will never know what the people in Emily's Video were watching. These secondhand experiences are the only proof of its existence.

Following in the footsteps of other 'reaction videos' made for YouTube, Emily's Video provokes wildly different reactions: disbelief, fear, anger, disgust and nervous laughter. Willing participants hide their eyes, lambaste the video's maker, or simply walk away. As in other of the Mattes' works, it is the viewer that makes the work, it can't exist without them. In fact, the work is installed to emphasise the screen as a mirror of the viewer. Presented on a large vertical monitor leaning against the wall, the image occupies only a third of the screen, the rest remains black and the viewers see themselves reflected, watching people watching.

> The Artists

Pioneers of Net Art, the work of Eva and Franco Mattes (both born in Brescia, Italy and now living and working in New York, USA) inhabits the web and skilfully subverts mass media to ultimately expand into and affect physical space. Their work explores the ethical and moral issues arising when people interact remotely, especially through social media, creating situations where it is difficult to distinguish reality from a simulation.

Their controversial interventions, often bordering on illegality, challenge dominant power structures, including the hierarchical status of the art world, and explore the impact of technology in modern society. Their actions interweave the 'real' and the 'virtual' space to create complex open-ended narratives that present a mirror to society, emphasising the multiplicity of personalities that construct our identity.

Their work has been exhibited internationally and are currently faculty members at the MFA Fine Arts Department of the School of Visual Arts, New York.



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Eva and Franco Mattes

Emily's
Video

2013
Italy

Video

Courtesy of
Carroll / Fletcher



Berlin-based artist Elly Clarke explores the impact of networked culture on our sense of identity and relationships. She creates conversations, exchanges and performances in spaces online and offline, investigating an age of instant mobility and communication and questioning the importance of the physical body and object in today's digital world.

The two works shown in this exhibition draw heavily upon Clarke's network. *Conversational Traces* (2008-2014) documents conversations the artist has had with friends, colleagues and lovers via Skype since 2008, charting changing hairstyles, fashions and moods over time, lending frozen-glimpses of chat-messages, inboxes and files exchanged during a fleeting moment. Initially captured as screengrabs, these images have undergone a process of reverse-engineering, from digital to analogue objects - transferred by Clarke from screengrab to .png file to 35mm negative and finally limited edition c-prints created in the darkroom.

Recently Clarke has performed as her alter ego #Sergina through a series of staged performances, where she and others mime in drag to songs she has written in collaboration with friends near and far: jarring musical accompaniments ranging from vocal, classical and techno. Every stage of #Sergina is produced in collaboration with other artists, musicians, editors, makeup artists and designers from cities across the world.

#Sergina's *Stimulatingly Sexy Simultaneous Simulation of Herself* (2015), performed for the first time for this exhibition, is a live performance that takes place in multiple locations by multiple performers performing at the same time, linked up via Google Hangout. Breaking with the pervasive, hyper-real, lip-synched performances by stars we've grown accustomed to, #Sergina projects an all-too-human version herself, full of the desire that comes with our own organic bodies - whilst reproduced #Serginas make the character reproduce-able, copy-able, mimic-able and not fixed to any one body or gender.

This performance is presented alongside documents of previous performances and music videos. In *Instantaneous Culture* (Berlin, 2013), #Sergina sings about sex, love, relationships and mobile phones in a life spent 'on demand'. *I Want To See You From A Different Perspective* (Banff, 2014), shot during an artist residency at The Banff Centre, sees #Sergina perform with other artists against a backdrop of Canada's dramatic natural landscape. *Phone me don't write* (2014-15), filmed in Patterson, New York, and Sudbury, Massachusetts, features #Sergina rhyming phrases such as "Kiss me, don't Skype" while glancing nonchalantly over historical artworks adorning the walls.

Performing alongside Clarke in this first presentation of #Sergina's *Stimulatingly Sexy Simultaneous Simulation of Herself* are Raul de Nieves (at Secret Project

Robot, Brooklyn), Liz Rosenfeld (in *The Club*, Berlin); Kate Spence (at *The Island*, Bristol) and Vladimir Bjeličić (at G12 Hub, Belgrade.) In addition there's Patricia Muriale (Berlin) doing costumes and Roseanna Velin (Birmingham) designing the make-up for all to apply, according to a strict step-by-step guide.

> The Artist

Elly Clarke's #Sergina performances follow in the tradition of instructional artwork artists such as Sol Le Witt and Yoko Ono, and are influenced by the way we live now in at least two dimensions simultaneously online and off with the pressure to update both our organic and digital bodies/profiles constantly. These works also consider the performative experiments of artists such as Stelerac and Oron Catts who have investigated the influence of technology on the body. As an organic avatar, where gestures like code or family resemblances are taught, learnt, performed and reformed, #Sergina is affected by and infects her locations and their inhabitants differently each time. Elly Clarke lives and works in Berlin and London.

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Elly
Clarke

#Sergina,
Instantaneous
Culture,
I Want To See
You From A
Different
Perspective and
Phone me don't
write

2013 - 2015
UK / Germany

*Live performances
and Video*

Conversational
Traces

2008 - 2014
UK / Germany

Prints



"In experiencing these machines at work, we start to understand that the Internet is not a weightless, immaterial, invisible cloud, and instead to appreciate it as a very distinct physical, architectural and material system."

Timo Arnall

Internet Machine is a multi screen video installation that transports us into the heart of the Telefonica data centre in Alcalá, Spain. Costing €300 million and occupying over 65,700 square feet, it is one of the largest, most secure and fault tolerant data centres in the world. These vast air-conditioned bunkers are strategically located near cheap, abundant electricity; their location is often shrouded with secrecy and access is highly restricted. Hosting up to 45,000 machines in a single site, they are also called 'server farms' or, more commonly, 'the cloud' – a nebulous, ethereal image which neutralizes and obscures the operation of 21st Century data processing.

In 2014, British artist and designer Timo Arnall was given unprecedented access to Telefonica's data centre to explore the peculiar architecture, geography and materiality of 'the cloud.' Through a series of slow motion panning shots, a labyrinthine series of corridors containing thousands of blinking switches and servers, air-cooling systems and electricity generators is revealed. The relentless hum of information processing is deafening; the post-industrial data factory is presented as both sublime and impenetrable. The seamlessness of each scene was made possible by Arnall's use of 3D animation and photogrammetry to create new camera movements in post-production using a virtual three-camera rig.

We live in a culture in which our devices are designed to simplify our interactions with the world and make them seem natural. Timo Arnall is one of a growing number of artists making visible the hidden technical infrastructures that sustain our digital culture: from underwater cables and telecommunications satellites to software protocols. Instead of allowing technology to fade in the background, they want to go beyond the seductive surfaces of our retina screens and open up this technology to questioning.



> The Artist

Timo Arnall is co-founder of Ottica, working with design, product invention, filmmaking, photography and strategy, most recently working with Google ATAP. Timo's design, photography and filmmaking work is about developing and explaining emerging technologies through visual experiments, films, visualisations, speculative products and interfaces. He led the international research project Touch investigating physical interaction with everyday objects. He has a PhD in interaction design.

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Timo
Arnall

Internet
Machine

2014
UK

Video Installation



Snow Fall is an interactive installation staged initially in 2009 at Palazzo Santa Margherita in Modena, Italy. With this installation, fuse* explored the potential of artificial viewing techniques in the artistic field for the first time. The system processes the images captured by a number of video cameras in real time, picking out the silhouettes of people, and blocking the fall of snowflakes on the shadows that people project onto the wall. The installation was also featured in 2010 at the finals of the Celeste Prize, displaying the work in action at the Brodbeck Foundation in Catania, Italy.

The first version was made with infrared camera, years before modern motion sensors were introduced to the market. Today, for the Right Here, Right Now exhibition in, the installation is completely renewed, even recreated as an artwork. With the help of new hardware and software, the level of interaction is improved preserving the same essential, yet powerful concept. The aesthetics have been added to with an audio soundscape, enabling a new experience of this revisited artwork.

> The Artists

fuse* is an Italian collective of multimedia artists, founded by Luca Camellini and Mattia Carretti in 2007 with the aim of exploring the expressive potential provided by the creative use of coding and digital technologies. The studio develops projects oriented towards the creation of digital artworks and performances, seeking out an ever more enveloping interplay between light, space, sound and movement. They have exhibited extensively in the United States and Italy.

15

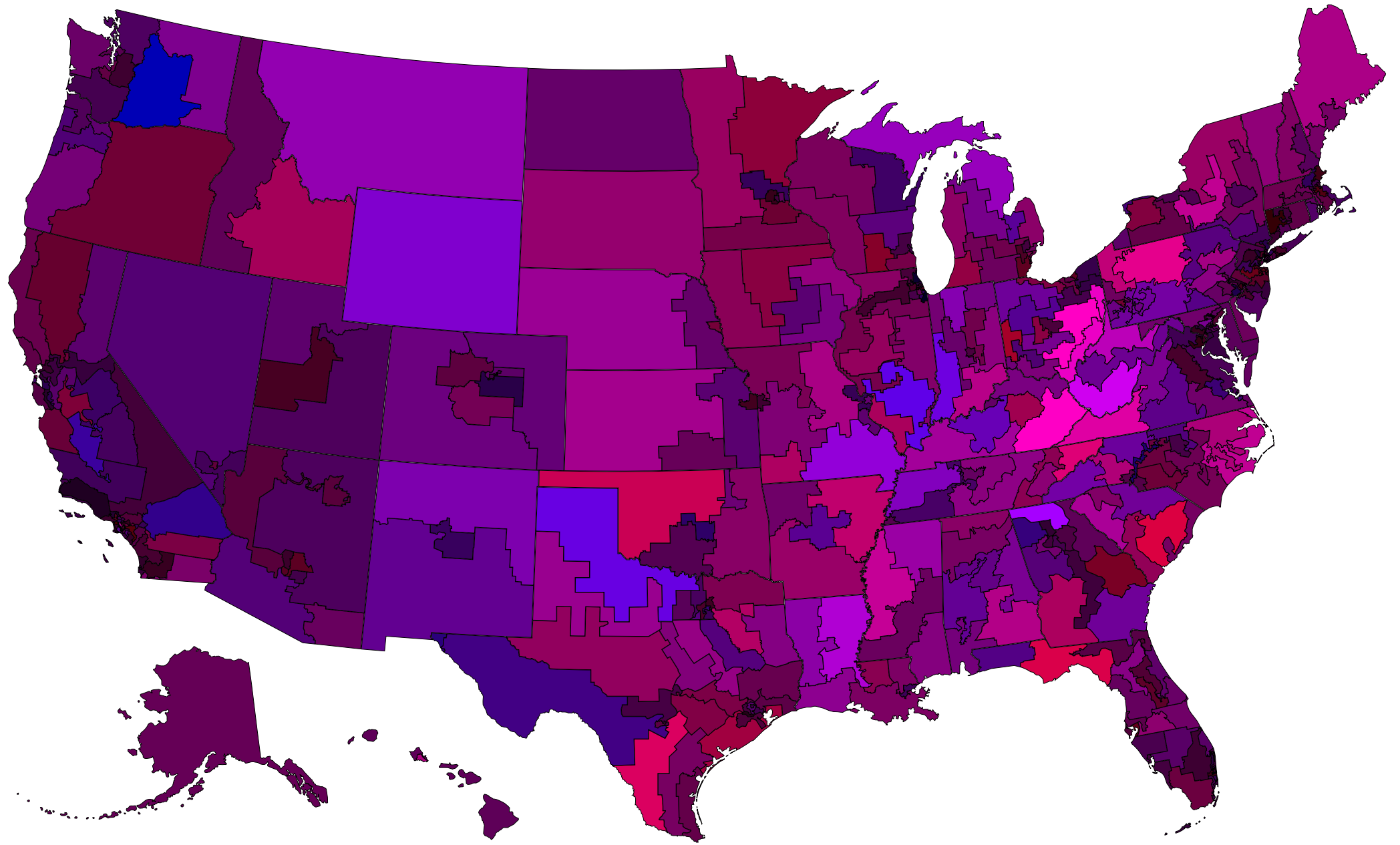
fuse*

Snow Fall

2009 -
ongoing
Italy

*Interactive
projection*





LONELY



"You better find somebody to love."

Darby Slick

Every ten years in the United States we take a census, the purpose of which is to determine how many people live in different areas of our country, so that the makeup of the House of Representatives reflects the makeup of the nation. Along with a simple count of heads, the census asks other questions which give us insight into our income, jobs, homes, ages and backgrounds. This information is analysed and published by the Government, telling us who we are.

But these facts and figures, interesting and useful as they may be, are not really us.

What if, instead of seeing our country through the lens of income, we knew where people said they were shy? What if, instead of looking at whether we own or rent our homes, we looked at what people do on a Saturday night? What if, instead of tallying ancestry or the type of industry in which we work, we found out what kind of person we want to love?

According to a Pew Research Survey Report issued in 2006, 31% of American adults know someone who has used online dating services to find a partner. That number has surely increased in the four years since. There are literally dozens of online dating sites, catering to different ethnic groups, gender and sexual identities, age ranges and social classes. To join a dating site you have to, quite

literally, 'put yourself out there', describing yourself for the express purpose of being liked. This seemingly simple act is quite complex. You have to provide, in addition to some basic statistics, two pieces of prose: you have to say who you are, and you have to say who you want to be with. In the second piece of writing, you have to tell the truth. In the first, you have to lie. I joined 21 dating sites in order to make my own census of the United States in 2010.

These artworks are my findings: a road atlas of the United States, with the names of cities, towns and neighbourhoods replaced with the words people use to describe themselves and those they want to be with. These maps contain 20,262 unique words, based on the analysis of online dating profiles from 19,095,414 single Americans. Each word appears in the place it's used more frequently than anywhere else in the country. Enjoy - R. Luke DuBois.

Singles data taken from: match.com | lavallife.com | plentyoffish.com | chemistry.com | okcupid.com | nerve.com | eharmony.com | singlesnet.com | perfectmatch.com | friendfinder.com | great-expectations.com | americansingles.com | date.com | christianmingle.com | gay.com | blacksingles.com | jdate.com | amor.com | asiafriendfinder.com | alt.com | collarme.com

Geographical data taken from: Rand McNally OpenStreetMap The United States Census Bureau The United States Postal Service Produced by Steven Sacks for bitforms gallery. Printing by Supreme Digital, Brooklyn, NY. Additional Software Development: Adam Parrish Additional Layout: Lesley Flanigan Software developed using Max/MSP/Jitter, Cycling'74, San Francisco, CA.

> The Artist

R. Luke DuBois is a composer, artist and performer who explores the temporal, verbal and visual structures of cultural and personal ephemera. Stemming from his investigations of 'time-lapse phonography,' his work is a sonic and encyclopedic relative to time-lapse photography. Just as a long camera exposure fuses motion into a single image, his work reveals the average sonority, visual language and vocabulary in music, film, text, or cultural information. DuBois is the co-author of Jitter, a software suite for the real-time manipulation of matrix data. An active visual and musical collaborator, he appears on nearly 25 albums both individually and as part of the avant-garde electronic group, The Freight Elevator Quartet. DuBois holds a doctorate in music composition from Columbia University and teaches at New York University.

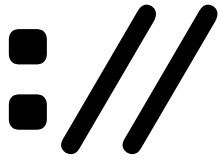
R. Luke
DuBois

A More
Perfect
Union

2011
USA

*Pigment-ink
on photo rag*

*Courtesy of the artist
and bitforms gallery*



Artist List

Timo Arnall -
<http://www.elasticspace.com/about>

Branger_Briz -
<http://brangerbriz.com/>

Ed Carter -
<http://edcarter.net/>

Elly Clarke -
<http://www.ellyclarke.com/>

R.Luke DuBois -
<http://www.bitforms.com/artists/dubois>

Julie Freeman -
<http://www.translatingnature.org>

fuse* -
<http://fuseworks.it/en/>

Joe Hamilton -
<http://joehamilton.info/>

Felicity Hammond -
<http://www.felicityhammond.com/>

Robert Henke -
<http://roberthenke.com/>

Mishka Henner -
<http://mishkahenner.com>

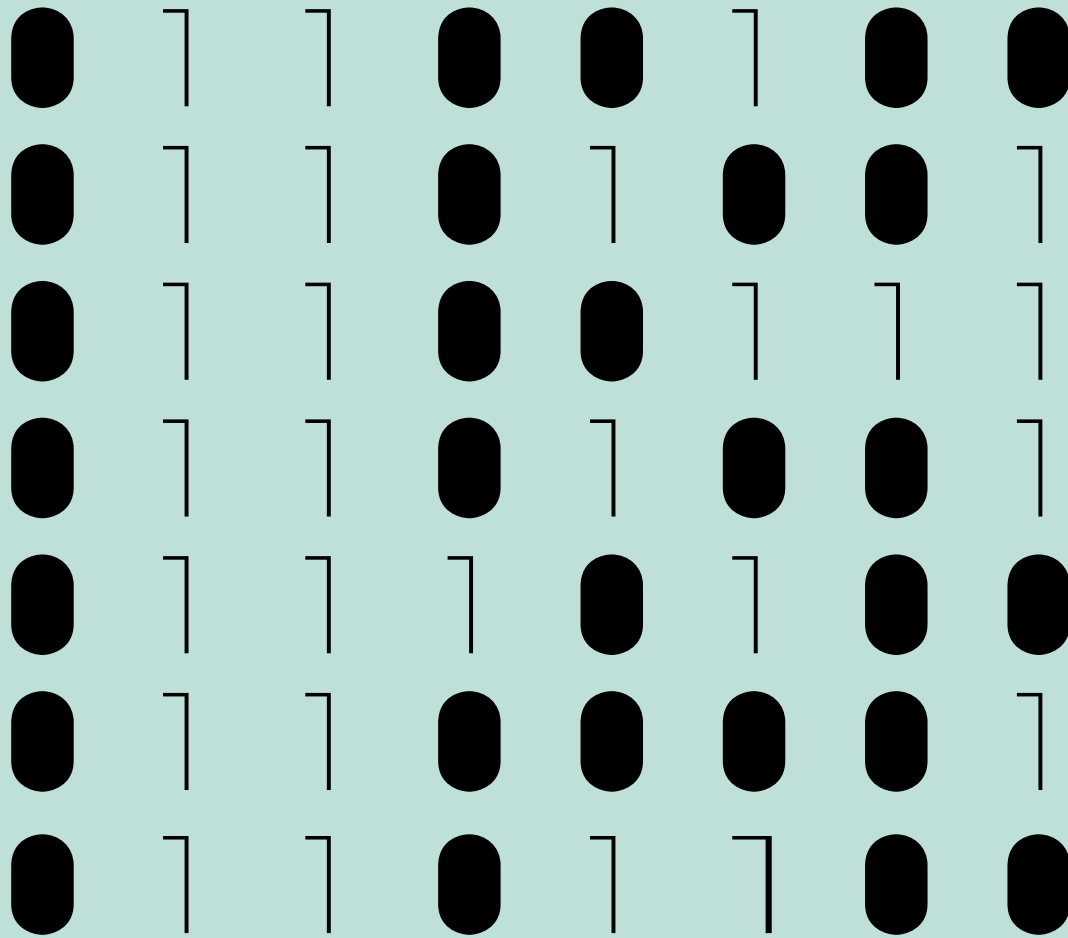
Eva and Franco Mattes -
<http://www.0100101110101101.org>

Nikki Pugh -
<http://npugh.co.uk/>

Stephanie Rothenberg -
<http://www.pan-o-matic.com/>

Daniel Rozin -
<http://www.bitforms.com/artists/rozin>

Thomson & Craighead -
<http://thomson-craighead.net/>



Beryl
Graham
Catalogue
Essay

Right Where, Right When?



Beryl Graham

Right Where,
Right When?

Duchamp [...] was the consummate game player of chess and art for whom [...] time, duration, complexity, concentration are allies of seriousness. To investigate what the computer is and why it is different, to act on these differences, and to face the contradictions inherent in embracing the computer in our culture, while speaking to that culture, is one way of addressing art, ideas and seriousness [...] Duchamp was ... balancing language and imagery full of puns and irony, a player and a worker.

Regina Cornwell 1996¹

Right here in the UK, right now in the 21st Century, the artist Marcel Duchamp still seems to resonate with this exhibition. He seriously rethought concepts of art authorship to make mass-produced urinals function within the art world economic system. In 1968 he played chess with John Cage in *Reunion*, which connected an electronic chessboard to sound synthesizer systems in order to

make live music harnessed to the slow and complex interactions of an ancient game. This is art that works in different ways across systems of space and time, whether or not it involves computers. The terms for describing the art within this exhibition have certainly changed over time: conceptual art, systems art, computer art, digital art, new media art, or net art, are all words with varying degrees of dissatisfaction attached, but what they have in common is a realisation that there are certain 'behaviours' of these artworks, such as live connectivity and interactivity, which present fascinating challenges for reconsidering what art is, and how it is seen². The artists who endure are not necessarily those who might be using the latest technology, but those who have the most critical and complex understandings of these concepts, systems, networks and cultures. One of the primary challenges presented by the exhibition is therefore the question: if it is right here right now, then where and when, exactly, is that?

To start with the question of where, then one of the key behaviours of the art is connectivity, so that chess boards can be connected to synthesisers, for example, with wires or wirelessly, across a room or across continents. Whilst there was much early understandably utopian excitement about the potential for hands across

oceans and live global grooving, the later actuality is both sublime and prosaic — citizen journalism or citizen science is radically changing international systems of knowledge, and cyberspace is merely where the money comes from when you put your bankcard in the machine. Yes, art can be produced and distributed online, and art can therefore happen outside of museums or galleries, outside of capital cities, and can be potentially participated in by more people. However, without an accurate understanding of how these invisible systems of finance, law and distribution work, the potential is primarily for business as usual, but bigger and faster. The artist **Stephanie Rothenberg** has made series of works where people can participate in online systems of labour, business and funding, including *Planthrop*, a crowd-funded system of growing delicate plants. What she reveals through the participation is a dissection of the mixed economy eco-rhetoric, where a quick tweet can make global funding angels feel 'warm and fuzzy' as their money trickles down to thirsty vegetation somewhere else, rather than watering the plants on their own windowsills.

Nikki Pugh's work is also very specific about the 'where' of online and offline contexts. Her prototype creatures from the project *Colony* are used on the

streets as a tool for perceiving the built environment differently. As the title suggests, they are meant to work with groups, and she also uses participatory production systems, and shares processes online. For thinking about systems, Paul Baran's useful 1964 diagrams of different kinds of computer network systems include both a traditional Centralised network where information is broadcast out from a central node, and a Distributed system like a fishing net where each knot can transmit to each other, describing the original Internet military system where if one geographic knot or node is damaged, information still flows around the damaged area³. What networked systems mean for art and the 'where' question, is that the potential is not merely for easier live streaming of Opera from London to a grateful nation, but for nodes to exchange with other nodes, whether those nodes are individuals, social networks, small or large organisations. Therefore, the answer to 'where' can be both online and offline, thinking globally and acting locally.

The question of 'when' is also key here. The artist **Elly Clarke**, creator of **#Sergina**, works with both online video and live performance, and as *Instantaneous Culture* says, "24/7 contact" via mobile devices is the object of desire. The music industry is in full flight towards

the monetising of the live unique performance, rather than the selling of inconveniently distributable recordings. However, there is not a simple binary division here between the authenticity of the live body and the ersatz not-live digital reproduction. The John Cage chess/music work *Reunion* already described can exist in both live and not-live versions, and the system and score has been made available for contemporary artists to rework in line with digital understandings of time and real-time⁴. The artists **Thomson & Craighead** also resist the relentless pressure on art in general, and digital media in particular, to present the shock of the new, by embarking on *Stutterer*, a project that is not due to end until 2080 – the time taken to speak the CGTA letters of the human DNA code, using tiny clips taken from television news over a specific time period. The post-utopian slump on the development time-curve of various 'new' technologies has been well understood by artists as well as by commerce. As our disappointing mobile phone batteries, like hungry babies, force us into frequent dependency on power sockets, we find ourselves regressing to what is effectively a land-line. The artist group **Branger Briz** have cleverly identified these weaknesses, and place their *A Charge for Privacy* in art festival contexts, to highlight how dependencies are exploited by commercial and

governmental systems, in order to harvest personal information.

Beyond the hype of 'the new', 'the digital', 'big data', and imminent futurology, the ways in which technological systems work in space and time, have perhaps been better understood by artists and other critical users, rather than by traditional art critics or historians. As curator Jack Burnham outlined, there is a basic binary divide between arts/humanities and science/technology, where the former regards the latter as tainted military/industrial running dogs, to be avoided for reasons of moral hygiene⁵. Right now, the binary divide tends to be between the rhetoric of new media as somehow revolutionising participation, or art audience reach, and the rhetoric of robot surveillance overlords, or whey-faced techno-evangelist art. The suspicion across the divide may well be based in history, but the strength of contemporary artists and curators lies in their ability to understand and use those military/industrial tools for their own ends, rather than simply avoiding a perceived taint.

Histories of both art and technological systems are clearly important for understanding this art, and in particular a history of exhibitions, for it is there that the art meets its audience in space and

time. Jack Burnham, for example, curated the exhibition *Software: Information Technology: Its Meaning for the Arts* in 1970, which included interactive exhibits from research technologists Architecture Group Machine M.I.T, as well as being fully informed by the wider 'systems art' and live or conceptual art of the time such as Vito Acconci, John Baldessari, and Agnes Denes. In 1985, the exhibition *Les Immatériaux*, curated by Jean-François Lyotard for the Centre Pompidou, Paris, wrestled with the concept of exhibiting immateriality in a gallery space by including computer screens and keyboards showing the project 'Writing Tests' commissioned by Lyotard from a collection of philosophical writers and experts, using an online bulletin board system in advance of the exhibition⁶. What both exhibitions highlighted was not only the differences in space and time afforded by computers, but also the changing behaviours of audiences in response to the artworks, when using inherently participatory systems such as audience participation, bulletin boards or discussion lists.

These systems are now so ubiquitous that they risk becoming invisible, unless artists challenge us to be critical, not only about exactly where and when, but also about exactly what system is meant – social systems, economic systems, or a

combination of infrastructures perhaps? Concerning our roles within these systems, are we, like Marcel Duchamp, both "a player and a worker"? What kind of systems and contexts are we working with, right here, right now?

SOCIAL SYSTEMS AND CODES

Code, whether or not it is foregrounded in an artwork, is intertwined with the meaning of that work. Programmers embed social codes into software, while algorithms affect and determine our actions in code-mediated spaces, thus mediating our social interactions as well.

Victoria Bradbury 2015⁷

As artist and researcher Victoria Bradbury points out, computer coders, however isolated, cannot help but be effected by social codes both as they code, and later when the artefact meets its audience in an interactive social space. Her background in live art therefore resonated in surprising ways with newer issues of the performativity of code. Technological tools exist not only in

military or industrial settings, but also in the most intimate places – nestling in our laps, and clutched in our hot little hands. Learning the etiquette of this vast range of systems can be difficult — even sedate online academic discussion lists are fraught with issues of behaviour, which need tactful moderating so that we can all get along. On the Internet, you could be any avatar you like, with the social behaviour appropriate to, for example, a seven-foot-tall cat-snake, and hence the range of social codes is considerably broadened. Online, you can see anything at a click, especially on the Darknet, those private online networks that can only be accessed using certain protocols.

Eva and Franco Mattes, in their work *Emily's Video*, manage to both keenly observe social codes, and disrupt a whole raft of art values concerning authorship and objecthood. Their video shows volunteers watching "the worst video ever" sourced from the Darknet, which was then destroyed, meaning "second hand experiences are the only proof of its existence." So, we have audiences in an art gallery, watching audiences who are watching a 'secret' work that is not the artists'. The audience is left trying to imagine what is being reacted to so strongly to, and the cultural context – what country is it? Would people from another culture react differently? Is this

a denial of voyeurism of physical pain as in war journalism, or indulging a different kind of voyeurism of human reaction as in reality TV?

Codes are all around us, from the fragile DNA codes which underpin all of our bodies, as made flesh in duration by **Thomson & Craighead's** *Stutterer*, to the online intimate social codes of **Elly Clarke's** *Conversational Traces* where broadcasting your sexuality online fits right in with the desire to conduct relationships at a distance. We are not, however, lone individuals. **Nikki Pugh's** prototype creatures from the project *Colony* for example, have their own programmed personalities, which in turn affect the behaviours of the group of people carrying them around the streets, and influence the reactions of bystanders watching the strange site-specific situation. Interactions between human beings are highly complex networks, which go far beyond the limited variables of human-computer reaction, but fortunately, many artists are sensitive to the subtleties of what can be achieved by colonies, groups, or collaborators, in addition to the simple joys of controlling a computer⁸.

Daniel Rozin's *Darwinian Straw Mirror*, also makes reference to DNA, but in this case to the generative nature of

software, which can evolve over time to create code-based images which grow like plants. Rather than a grandiose amplifying mirror, this one shows fragile reflections of ourselves, easily blown down by movement, but if more than one person joins the image, then people can 'grow together' in delicate, animistic ways. **fuse*'s** *Snowfall* is likewise sensitive to the nature of human interaction, especially in public spaces where people may or may not feel safe and confident. In the face of gently falling digital snow, people might want to huddle together for warmth, rather than snowing on each other's parades. However, although systems of human interaction might be reasonably familiar to most people, there are also systems where we might be less familiar with how digital and new media are changing the ways in which things work.

ECONOMIC SYSTEMS

Use Schnail Mail to send
as many real letters and
postcards as you want.
Absolutely free. For life.
[...]
Now, I do have to mention
that there is a little
caveat:
We do open your letters.

And read your mail.

Aral Balkan 2014⁹

Aral Balkan, who describes himself as a designer and social entrepreneur, uses older forms of distribution, such as the postal service where there are severe penalties for opening mail, to point out just how radically new media has changed ideas of what is acceptable in exchange for a 'free' service. What he is busy developing is a software network client that is not based on spying, or selling customers' information to other commercial companies, towards the idea of a surveillance-free mobile phone that can run this free and open source system¹⁰. Right now, it is interesting to note that some of the authors of the works in this exhibition choose not to call themselves artists. Making systems that actually work, without buying into the values of globalised production, is an important tenet of 'Critical Making' where social systems are considered, and various means of co-production are considered. This has created some interesting challenges to the traditional UK strict hierarchical division between Art and Design, where Art has mistakenly assumed sole ownership of criticality, through avoiding the tainted hands of commerce. **Nikki Pugh**, for example, uses co-design methods for the production of

some works, and the surgically accurate satire of *A Charge for Privacy* emerges from the **Branger_Briz** group's past work in a conventional marketing company. **Stephanie Rothenberg's** *Planthropology* work, is just one from her series of works which examine the new economic models of micro-funding within the reputation economy, the experience economy, or the 'Mechanical Turk' models where many people globally are paid small sums for lots of small online tasks. This micro-patchwork of disparate ethical models for an economy makes for an Exquisite Corpse¹¹ of a corporation, and for strange fruit that might be rotten under the skin.

Revealing the economic base of what lies beneath the skin of a traditional art aesthetic, is clearly the business of several of the works in this exhibition. **Mishka Henner's** *The Fields*, for example, at first glance might appear to be a beautifully calm, almost abstract vision, seen from the god-like overview of Google Earth. A deeper look, together with the knowledge that these are oil fields, reveals the densely representational landscape of power and control, and the most economically disputed territories on Earth. The title of **Felicity Hammond's** *Restore to Factory Setting* also reveals knowledge of the production processes behind the art product, even using the

most traditionally aesthetic language of colour. For Hammond, blue is the colour of a screen when it is unable to transmit information, or of a planning blueprint for the future.

What the recurring conflation of 'the digital' with 'creative industries' often fails to grasp is the complexity and fluidity of critical making, which might appear as a killer app, or in an art gallery, or both. If digital systems of production, such as open source software, are changing not only economic systems but also value systems, then the whole infrastructure of the cultural landscape is changing too.

INFRASTRUCTURAL SYSTEMS

"Police come knocking on your door for a download - to arrest you after 'identifying' you on YouTube or CCTV. They threaten to jail you for spreading publicly funded knowledge? Or maybe beg you to knock down Twitter to stop an insurgency? [...] The all-out internet condition is not an interface but an environment [...] acquiring

more and more glitches and bruises along the way."

Hito Steyerl¹²

Systems connect: the social, the economic, forming a ubiquitous faux-ecological system where it's difficult to see the wood for trees. The real and the virtual spaces cross over, with glitches and bruises from the choppy crossing. This landscape is most definitely post-romantic and resistant to naturalisation. There is however a tension again between the formalist abstract and the representational. **Thomson & Craighead's** *Corruption* light boxes are from a series about landscapes, but are in fact frames taken from a file found online — intended to put a virus onto the downloader's computer. The beautiful pixelated look of these images reflects Lev Manovich's warning that art historians should not call such works abstract, because the pixels are representational — they represent code¹³. These codes are full of intent, yet fragile and glitchy.

R.Luke DuBois has made detailed colour maps of the USA, tracing the tender words used by people describing themselves on online dating sites. The frequency of these words, from the shy to dominant, defines the palette of colours which draw the contours of the emotional landscape.

Timo Arnall's *Internet Machine* reveals the bleak beauty of the private spaces that facilitate the public forum of the Internet, and hence the sublime, mundane detail of those particular small spaces that connect the technologised world.

Joe Hamilton's *Regular Division* combines internet-sourced images of classical painting with photographs of greenhouses, where technology and nature meet for production. Formalist intent can also be read into **Robert Henke's** *Destructive Observational Fields (DOF)* where the unchanging material constraints of heat, time or expansion make their own materialist aesthetics.

The participatory, live nature of **Julie Freeman's** *We Need Us* suggests another kind of ecological landscape, and an aesthetics of interaction which has been relatively neglected by art history. The nature of the citizen-science-sourced data about extinction of species makes for a very unromantic landscape of urgent, live crisis, but a hopeful one where we might act locally and think globally, right now. **Ed Carter's** *Barographic*, is likewise live, and responsive to the current data of our surrounding contextual systems of barometric data and architecture that are more usually only visible to building managers and climate scientists. The translation of this data into sound, mapped onto graphic scores of buildings, highlights

the complex relationships between people and their surrounding infrastructures.

Critical Systems Here and Now

"Thus the Paris Revue
Positiviste reproaches
me in that, on the one
hand, I treat economics
metaphysically, and on
the other hand – imagine!
– confine myself to the
mere critical analysis of
actual facts, instead of
writing [recipes] for the
cook-shops of the future."

Karl Marx 1873¹⁴

It may seem strange to be citing a 19th Century politico-economic theorist in relation to art right now, but Marx's three approaches to understanding non-material systems are perhaps useful here: A metaphysical approach to complex systems in space and time, a critical approach to the facts of how systems work, and a willingness to open-source some alternative recipes for cultural cook-shops. Changing systems is never easy, and the major challenge for both politicians and for artists is to avoid imposing their new model system on the participatory populace. As Marc

Garrett, co-director of furtherfield the arts, technology, and social change organisation states: "the values are created by the people that we work with, you can't jump in with a template (...) you have to experience it to know what it is."¹⁵

These alternative recipes have even changed the systems of how this exhibition has been put together. The lead curator Lucy Dugate has brought together a dynamic network of those working in the field internationally, to nominate artists, to write, and to chew over all aspects of gallery interpretation and publicity systems, rather than choosing the more traditional role of the single curator as a distant connoisseur.

This art, therefore, is not simply about opposing The System, but about critically understanding the workings of which system, where and when, and as such, offers some long-term protection from the more asinine political fashions for information superhighways with tollbooths, big society and big data. It is not simply about visualising invisible systems in the scientific positivist sense, but about making visible those things that are deliberately hidden. The nature of this art positively crackles with witty energy, shows exciting hybrid vigour across the boundaries of art, technology and media, and promises well for the cook-shops of the future.



END NOTES

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8 For more on interaction and participation, see Graham, Beryl (2010) "What kind of participative system? Critical vocabularies from new media art." In: Anna Dezeuze (ed.) *The 'Do-it-Yourself' Artwork: Participation from Fluxus to New Media*. Rethinking Art's Histories series. Manchester: Manchester University Press. 281-305.

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10 Open Source is a specific term for collaborative production of software, where the source code of how the system works is available for modification by any programmer (like sharing recipes for adaptation, rather than keeping a proprietary recipe secret in order to corner a market). Open source software is usually free, but sometimes there is a nominal charge, so there is both a production system and an economic system involved.

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Exhibition Credits

</end>

Exhibition lead curator and producer
Lucy Dugate Associate Programmer - Digital, The Lowry
Overall show curation and selection of the following
artists; Daniel Rozin, R.Luke Duboise, Robert Henke,
Ed Carter, *fuse and Eva and Franco Mattes

The guest curators nominated artworks and text:
Sarah Cook selected Branger_Briz and
Thomson & Craighead (Stutterer)
Annet Dekker selected Stephanie Rothenberg
Karen Newman selected Elly Clarke and Nikki Pugh
Hannah Redler selected Joe Hamilton, Julie Freeman
and Felicity Hammond
Katrina Sluis selected Timo Arnall
Lindsay Taylor selected Mishka Henner
and Thomson & Craighead (Corruption)

Essay by Beryl Graham

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and University of Salford Art Collection



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